



**PERCEPTIONS OF THE PURE PALLET
PROGRAM**

THESIS

Michael T. Dye, Captain, USAF

AFIT/GLM/ENS/06-04

**DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY**

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

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THESIS

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Michael T. Dye, BS

Captain, USAF

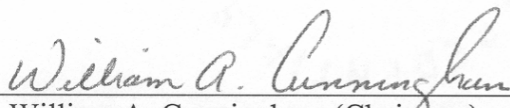
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Michael T. Dye, BS
Captain, USAF


Approved:




Dr. William A. Cunningham (Chairman)



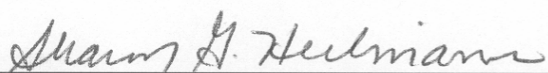
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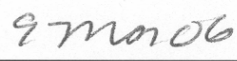
Kirk A. Patterson, Major, USAF (Member)



date



Sharon G. Heilmann, Major, USAF (Member)



date

Abstract

The expeditionary nature of today's Department of Defense (DoD) demands an effective Defense Transportation System (DTS). The major stakeholders within the DTS supply-chain including United States Transportation Command (USTRANSCOM), the newly appointed Distribution Process Owner (DPO), have continued to explore process improvement programs initiated in the 1990s, but do so now from a systems-level approach. One such initiative is the pure pallet program, initially implemented in November 2003 by Defense Logistics Agency (DLA)-owned depots, and later by Air Mobility Command (AMC)-owned aerial ports in March 2004.

In coordination with United States Central Command (USCENTCOM), USTRANSCOM, and the DLA, AMC implements the pure pallet program to improve warfighter support. The cornerstone of the pure pallet program rests upon the consolidation of materiel early in the supply-chain by constructing end-user specific pallets. This research utilized a web-based survey to measure the perceptions of the air transportation specialists and logistics readiness officers who are implementing the program on behalf of the Air Force. The results indicate that the pure pallet program is achieving its intended results; however, there is a perception problem. Recommendations center on educating personnel on the importance of suboptimization avoidance and making the warfighter the most important customer. This research also serves as a formal source of information from which to form conclusions and make judgments on how well Air Force personnel are implementing the pure pallet program.

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To the warfighters and those by whom they are supported

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PERCEPTIONS OF THE PURE PALLET PROGRAM

I. Introduction

Background

Throughout the 1990s, each branch of the Department of Defense (DoD) embarked upon its own initiative to shorten its supply order fulfillment time. A number of customer-oriented programs and initiatives were well under way at the onset of Operation ENDURING FREEDOM (OEF) in October 2001 and Operation IRAQI FREEDOM (OIF) in March 2003.

A monumental force structure change occurred on September 9, 2003, when the Secretary of Defense designated the Commander, United States Transportation Command (USTRANSCOM) as the Distribution Process Owner (DPO). “In this capacity, the DPO is tasked with developing efficient and effective distribution solutions to enhance strategic support to worldwide customers” (USTCNS, 2003). The DPO is now the single entity responsible for directing and supervising the execution of the Strategic Distribution System as well as for improving the overall efficiency and interoperability of distribution related activities—including deployment, sustainment, and redeployment—during peace and war.

The expeditionary nature of today’s Department of Defense (DoD) demands an effective Defense Transportation System (DTS). The major stakeholders within the DTS supply-chain, to include the newly appointed DPO, have continued to explore the process

improvement programs initiated in the 1990s, but do so now from a systems-level approach. One such initiative is the pure pallet program, initially implemented in November 2003 by DLA-owned depots, and later by AMC-owned Aerial Ports in March 2004. In coordination with United States Central Command (USCENTCOM), USTRANSCOM, the Defense Logistics Agency (DLA) and Air Mobility Command (AMC) implements the program to improve warfighter support.

The overarching goal of this program is to increase the speed at which supplies are delivered to the warfighter while simultaneously eliminating the risk of breaking down pallets under conditions of today's asymmetric combat environment. The cornerstone of the pure pallet program rests upon the consolidation of materiel early in the supply-chain by constructing end-user specific pallets. Doing so reduces the amount of non-value-added time normal break-bulk pallets traditionally incur while transiting the distribution pipeline. Whereas traditional break-bulk pallets must frequently be broken down and re-palletized en-route, these end-user specific pallets are, in effect, able to move more quickly through the DTS, theoretically arriving in the hands of the end-user in less time.

Since the pure pallet program's inception, another, more recent, force structure change occurred on June 14, 2005, when President George W. Bush nominated Lieutenant General Norton Schwartz to take command of USTRANSCOM (USTCNS, 2005a). The General's subsequent assumption of command on September 7, 2005 "marked the first separation of command responsibilities between USTRANSCOM and Air Mobility Command (AMC), the Air Force component command of USTRANSCOM" (USTCNS, 2005b). General Schwartz stated that:

A large portion of the separation is because of the growth and maturity USTRANSCOM has made in becoming the defense supply chain manager that the Secretary of Defense had envisioned for the command. That supply chain is an end-to-end process orchestrated by the command that is developing now and is the future of the distribution process (USTCNS, 2005c).

For more than two years, key stakeholders in the distribution pipeline have had the opportunity to implement the innovative pure pallet program and overcome the initial obstacles present in any major process change.

Problem Statement

As the DPO, the USTRANSCOM Commander needs to know if the pure pallet program is working as intended. The AMC Commander, as Commander of USTRANSCOM's air component forces, needs to know if there is a perception problem among Air Force personnel involved in program implementation. This research seeks to assist both of these key leaders in determining if the pure pallet program is working as intended and if there is a perception problem among USAF personnel involved in program implementation. This research may also benefit anyone who may be involved in any way with program implementation.

Research Question

This research will answer the following two-part question: Is the pure pallet program working as intended, and is there a perception problem regarding program performance among the Air Force personnel involved in program implementation?

Investigative Questions

The two-part research question will be answered by answering the following five investigative questions:

1. What were the events that led to pure pallet program implementation and how does it work?
2. How effective was the pure pallet program in reducing the total time elapsed from customer requisition to fulfillment?
3. Among the overall population of Air Force Air Transportation Specialists (AFSC 2T2X1) and Logistics Readiness Officers (AFSC 21RX), what percentage has been exposed to the pure pallet program?
4. What are the perceptions of the Air Force Air Transportation Specialists (AFSC 2T2X1) and Logistics Readiness Officers (AFSC 21RX) involved in pure pallet program implementation?
5. From the perspective of Air Force Air Transportation Specialists (AFSC 2T2X1) and Logistics Readiness Officers (AFSC 21RX) involved in pure pallet program implementation, what specific recommendations do they have that could improve the program?

Research Objectives

The primary goal of this research is to address the Research and Investigative questions in an effort to provide both USTRANSCOM and AMC Commanders, as well as their respective involved staff agencies, a formal source of information from which to form conclusions and make judgments on how well USAF personnel are implementing

the pure pallet program within the Air Force in support of the USCENTCOM Area of Responsibility (AOR). Since this process improvement initiative lives in relative infancy, very little previous research has been documented from which to continue or depart.

One exception is a Graduate Research Project (GRP) published by Major Michael Mongold, a 2005 Advanced Study of Air Mobility (ASAM) graduate. His findings indicated that “the ‘Pure’ pallet process has positively affected the ‘effectiveness’ of the DTS while not negatively affecting the ‘efficiency’ of the system” (Mongold, 2005: iii). Major Mongold’s GRP, coupled with this researcher’s experiences with initial pure pallet program implementation at Dover AFB, Delaware until July 2004, provided the impetus for this research effort. Mongold’s 2005 GRP is the first known published research effort pertaining to the pure pallet program. To that end, the research goal was to fill this information gap while measuring and illustrating the perceptions of the USAF personnel implementing this program happen at the aerial ports, which is but one node in the overall strategic distribution system.

The first investigative question was answered by reviewing available literature pertaining to customer service in general, customer service in the DoD, and the events leading to pure pallet program implementation. A descriptive analysis of how the program works was also conducted.

The second investigative question was answered through a descriptive analysis of material provided by Mr. Marc Robbins of the RAND Corporation. Mr. Robbins had previously conducted a noteworthy global analysis related to end-to-end distribution, a

respectable portion of which was devoted to the pure pallet program. His report was unpublished at the conclusion of this research effort.

The third investigative question was answered by analyzing the demographics of the web-based survey, which was sent to all 2T2s and 21Rs in all three components of the U.S. Air Force: Active Duty, Air National Guard, and Air Force Reserve. The resulting demographic analysis provides the reader an idea of how well the survey respondents' perceptions actually compare to the representative population of interest, to which inferences are made.

The fourth investigative question was answered by developing and fielding a web-based survey tool specifically designed to measure the perceptions among 2T2s and 21Rs, who are collectively responsible for pure pallet program implementation within the USAF, specifically at aerial ports. Hypothesis tests were then conducted to determine if, and in what demographic group, perception problems exist.

The fifth investigative question was answered by building in an open-ended item into the survey, which allowed survey respondents an opportunity to provide candid feedback regarding, and specific recommendations for improvement to, pure pallet program implementation.

As previously stated, the overarching research question consisted of two parts. The first part was answered by comparing the results of the first two investigative questions one to determine if the pure pallet program is working as intended. Results from the remaining investigative questions were synthesized to determine if there appears to be a perception problem among those USAF personnel involved in pure pallet program implementation at the aerial ports.

Research Significance

Many process improvement initiatives are implemented with great intentions; however, it can be argued that change of any kind requires careful oversight to prevent an otherwise great idea to fail due to poor implementation. One example is the Total Quality Management (TQM) initiative. Evidence of TQM-similar metrics throughout the USAF and greater DoD suggests that remnants of this initiative remain even today, while the name TQM may not. The TQM Initiative may not necessarily have been a bad idea. Though not officially documented across the DoD, one can argue that the manner in which it was propagated left an indelible negative impression on those forced to live with its implementation. In light of this possibility, and in the spirit of continuous process improvement, key leaders need some sort of feedback mechanism to ensure that the pure pallet program is working as intended and there are no perception problems.

The underlying intent of this research was to arm key leaders and their staffs with critical information from a representative group of USAF personnel so critical to the pure pallet program's success or failure. This research also validates whether or not more intensive program management oversight is required at this time. Additionally, it provides a survey assessment tool with which to measure future perceptions of the program. Armed with this information, these key logistics leaders will be able to more effectively implement continuous process improvement innovations in an effort to provide the best possible customer service to supported combatant commanders.

Scope and Limitations

The original intent was to measure the perceptions of both builders and recipients of pure pallets. There are essentially two locations or functions where pure pallets are built; DLA-owned facilities and AMC-owned aerial ports. In discussing this research effort with personnel who oversee Defense Distribution Center (DDC) operations, they stated that DLA personnel were technically already building pure pallets, more or less, upon implementation of the pure pallet program known today. Specifically, depot implementation of the program in November 2003 necessitated only a change in electronic database management protocol; depot personnel already had specific build lanes by customer (read Supply Support Activity (SSA)) in their facilities. As such, it was determined that the proper focus of this research should be on the builders of pure pallets at AMC-owned aerial ports.

II. Literature Review

Introduction

The objective of this literature review is to build a foundation from which to conduct this research effort. This chapter is divided into three main parts. The first part briefly discusses the seminal literature in the realm of customer service. The second part examines the literature pertaining to customer service in the DoD. The first two parts are provided so the reader can better appreciate the discussion of the third part, which examines the circumstances leading to the creation of the pure pallet program. A detailed explanation of how the program works is also examined in detail in part three of this chapter.

Customer Service

While the focus on different aspects of customer service appears to have been influenced over the years by changing U.S. and international economies, transportation deregulation, and advances in technology, what emerged throughout the reviewed literature is an underlying philosophy to which the vast majority of the authors subscribe. The remaining portion of this section briefly examines this philosophy in an attempt to provide a very broad overview of customer service from which to understand and apply a similar focus within the DoD.

The seminal works pertaining to customer service were first published in the early 1960s. Early works “offer a novel view (for 1961) of distribution as a total operation or

system” by “examining the entire distribution system with emphasis throughout placed on the importance of customer service” (La Londe, Cooper, and Noordewier, 1988: Appendix H.1). Companies focused on their distribution systems to gain a competitive advantage. These actions persisted throughout the 1960s and into the 1970s when, in 1973, “the issue of where customer service responsibility lies was addressed” and “the reasons why customer service has emerged as a key element within the logistics field were identified” (La Londe, Cooper, and Noordewier, 1988: Appendix H.1).

“In 1976 the Council of Logistics Management sponsored what was the first systematic and comprehensive industry-wide study of customer service” (La Londe and Cooper, 1989:1). The publication “provided an important source of information for focusing management attention on this key area” (La Londe & Cooper, 1989:1). By this time, the customer service catchphrase was alive and well. Why did this happen?

“There are many reasons, beyond general consumer discontent, why quality service [became] a more and more important issue in the boardrooms of American corporations” (Denton, 1989:2). A number of other authors submit that the U.S. lives in a service economy, no longer focused on agriculture and manufacturing (Albrecht, 1988:v; Denton, 1989:2; and Hinton, 1991:1). Still another reason offered as an explanation for increased emphasis on customer service was that many service industries were competing in a wider geographic area, some even globally (Denton, 1989:3; Bowersox, Closs, and Helferich, 1986:71; and Zeithaml, Parasuraman, and Berry, 1990:2). Leaders in all service industries quickly recognized that “foreign competition nearly destroyed many manufacturing sectors; its effect on our society may be even more profound considering the sheer size of the service sector” (Denton, 1989:3).

More books were published in the 1980s (Peters and Waterman, 1982; Peters and Austin, 1985; Albrecht and Zemke, 1985; Lash, 1989; and Denton, 1989), “each telling various stories of successful service companies” (Long, 1986:1). A number of different customer service models were proposed in various publications during this time; however, the common theme, or underlying philosophy, was *organizations exist to serve customers*. While an argument can be made that companies are in business to make money, an equal, if not stronger, counter-argument can be made that without customers, there would be no purpose for the business to exist.

By the end of the 1980s, customer service was more than just a buzzword. Customer service was, and still is, the primary means for companies in the service sector to differentiate themselves in order to gain a competitive advantage. Lagging far behind their civilian counterparts and despite their lack of a profit motive, government agencies began to view customer service with just as much enthusiasm as businesses seeking greater profit margins.

Customer Service in the DoD

Many may argue that the origin of the customer service-oriented focus in the DoD is attributed to the DoD’s Total Quality Management (TQM) initiative. While use of this acronym certainly gained momentum in the late 1980s and into the 1990s, this is certainly not the first evidence of a customer service focus within the DoD. In fact, customer service-oriented process improvement changes were made prior to the advent of the DoD’s version of TQM.

The Early Days.

Advances in technology brought the ability to improve customer service within the DoD when the U.S. Army introduced the Direct Service Support (DSS) system in the 1970s (McIntyre, 1977).

The DSS concept envision[ed] direct delivery of shipments from CONUS wholesale depots to a supply support activity (SSA), reducing/eliminating the need for the intermediate levels of stocks. The primary objectives include[d] improved supply responsiveness through reduced Order Ship Times [OST], reduction of inventories at the intermediate levels resulting in reduced costs, and improved visibility of requisitions and intransit materiel (U.S. Department of the Army as cited by McIntyre, 1977:2).

An extensive, in-depth analysis of the OST segments contained in the system showed areas of concentrated effort and extensive management “in an all-out attempt to meet or exceed the established time segment goals” (McIntyre, 1977:ii). What this author found most ironic about McIntyre’s study was that he identified the “need for improved packaging, containerization and subcontainerization” (McIntyre, 1977:4). McIntyre concluded “in retrospect, the Order Ship Time for U.S. Army units...has been reduced considerably when the Direct Support System is compared to CONUS supply responses (averaging over 100 days) prior to 1970” (McIntyre, 1977:26). While ahead of its time, this study foreshadows the desired effects of the pure pallet program, which will be discussed later in this chapter.

Interestingly, the contents of a 1971 study cited the Blue Ribbon Defense Panel of 1970, a body of sixteen senior public servants and business leaders who submitted a report to the President and Secretary of Defense on the Department of Defense. “In regards to Defense Logistics, the Panel concluded that:

There is substantial room for improvement and greater integration of management throughout the supply, maintenance and transportation systems of the Department...the logistics systems of the Department of Defense, in activities other than procurement and the initial warehousing phase, is decentralized and fragmented in functional assignment. Efforts of the Congress and the Office of the Secretary of Defense to improve efficiency and effectiveness of these activities...have achieved very limited success. As a consequence, the current inventory management, distribution, maintenance and transportation systems are needlessly inefficient and wasteful, and...fall far short of the potential for effectiveness of support of combatant commanders” (Blue Ribbon Defense Panel as cited by Gamino, 1971:47-48).

The DoD would have to live through the days of TQM and other customer service-oriented process changes, such as the consolidation of all depot distribution operations under DLA (Robinson, 1993), before the USTRANSCOM commander would be designated as the DPO. Interestingly, a number of studies pertaining to customer service were conducted before TQM was propagated throughout the DoD.

A 1986 study “measured the Air Force Civil Engineering customers’ level of satisfaction with the service they receive[d] from Customer Service Units at non-TAC [Tactical Air Command] Air Force bases” (Long, 1986:vii). Also in 1986, another study “examine[d] the effectiveness of Civil Engineering in Tactical Air Command (TAC) from the customer’s point of view” (Singel, 1986: vi). A 1987 study “examine[d] and quantif[ied] the perceptions of USAF Civil Engineering customers” and stressed that “BCE [Base Civil Engineering] officers should be familiar with the factors that most influence their customers’ perceptions of civil engineering service” (Kirschbaum, 1987:viii-ix). Finally, a 1988 study “measured civil engineering customer satisfaction and validated a civil engineering customer satisfaction model developed by Kirschbaum in 1987” (Groover, 1988:vii). The author asserted that his research “provides a clear

indication of which areas offer the most potential for improving customer satisfaction” as well as “a report card by which to measure future improvements” (Groover, 1988:viii).

Interestingly enough, TQM did not proliferate throughout the DoD until after these studies were published. Very little time passed before TQM implementation problems were common among DoD organizations. A 1989 study found that “a lack of concise mission goals, objective performance evaluation tools, and organizational cohesiveness plague[d] the most recent restructuring” of two Air Force Logistics Command (AFLC) organizations (Taylor, 1988:vi). The author “indicate[d] the need to clearly define organizational and individual roles and responsibilities, in addition to involving effected personnel in the change process” (Taylor, 1988:vi).

While Air Force Civil Engineering customer service seemed to be a hot topic just a few years prior (Long, 1986; Singel, 1986; Kirschbaum, 1987; and Groover, 1988), Air Force Supply customer service got its fair share of attention in 1990. One study “evaluated the perceptions of TAC [Tactical Air Command] Base Supply major customers” and “provided additional evidence of the importance of customer service...and a benchmark for evaluating Base Supply customer satisfaction” (Flores, 1990:viii).

Another 1990 study “examined the evaluation criteria for the Malcolm Baldrige National Quality Award as possible predictors of quality internal customer service” (Spies, 1990:viii). This study is important in that it discusses internal customer service. Spies (1990:5) suggested that “a vast amount of research has been conducted on customer service, but this research is mostly limited to the general area of customer service and external customers.” Selin defines internal customers, and quoted by Spies, as “all the

individuals within an organization who work together to provide the product or service to the external customer” (Spies, 1990:6-7). The significance of this quote illustrates the very importance of USAF personnel involved with pure pallet program implementation.

A 1991 study “established that the level of customer satisfaction experienced is greatly dependent upon good order processing. It is very rare that such ‘tedious’ functions of Base Supply are actually pinned to the concept of customer service” (Jones, 1991:59). This study was “the first of its kind which link[ed] non-customer serving functions of Base Supply to the satisfaction level experienced by supply customers” (Jones, 1991:vii). Jones (1991:59) concluded his study by declaring, “It is the sincere hope of this researcher that if no other good has become of this effort, at least some lights will be turned on to the fact that everything that is done in the Base Supply organization ultimately impacts the customer’s impression of the unit.”

The importance of Jones’ study can be applied to this one. The personnel who build pure pallets at the aerial ports (and depots) do so without the traditional face-to-face contact in a more traditional customer service transaction. This is exactly the point of surveying the personnel who build and manage pure pallets. If these personnel do not perceive their actions to be beneficial to the warfighter, there exists some degree of possibility that the true effects of program implementation will not resemble those effects which were intended.

Operation Desert Storm: Blue, Green, and Red Logistics.

Studies conducted up to this point highlighted the importance of providing effective customer service. However, it was not until Operation DESERT STORM that

the DoD began to understand the importance of having a single command operating an integrated distribution network from the factory to the foxhole. “In response to customer requests, the U.S. Transportation Command created Desert Express, a daily ‘package express’ flight from Charleston, SC to Saudi Arabia” (Thalheim, 1991:ix). The lift requirement for the war was so large that “the customer was concerned with receiving shipments when they were required. Desert Express provided the customer with desired time and place utility” (Thalheim, 1991:103). “While there were the difficulties that occur when a new system is introduced, coupled with some problems that have been in existence for many years, Desert Express’ success exceeded USTRANCOM planners’ expectations” (Thalheim, 1991:94).

“One criticism of the Desert Express system: the need to bypass the current airlift “system” in order to get the “show stoppers” quickly to the AOR” (Thalheim, 1991:105). Why did the owners of the airlift system have to drastically alter the normal sustainment infrastructure? Why was it not working? While Thalheim points out there were some problems that have been in existence for many years, he does not specifically state what those problems were. However, a number of other authors did exactly that by explaining why such a drastic change was necessary. The short and simple answer was doctrine.

A Look at Doctrine: A Key to The Purple Door

The author of a 1992 Naval War College paper stated that “the operational level of war has been defined as the ‘link’ between the strategic and tactical level” (Redlich, 1992:1). He also emphasized that:

In order to insure the effectiveness of the theater logistics system, the unified commander is authorized directive authority over logistics, but current doctrine

allows components to basically coordinate and administer logistics support in the theater. There is no designated central authority which directs the capabilities and resources of all component logistics commands (Redlich, 1992:1).

Ironically, at that time, “the *Joint* [emphasis added] Planning and Execution Community (JPEC) advocate[d] that the Services are responsible for logistics support of their [own] combat forces” (Redlich, 1992:1).

Given the following statement, it is not surprising why logistics support operations are deemed successful: “Operation Desert Shield, Desert Storm, and Desert Farewell were three of the most successful logistical support operations ever carried out by U.S. forces” (Newman, 1993:1). It appears Newman is suggesting that if a combat operation is deemed successful, then by definition, any supporting logistics operations are automatically successful. While some military leaders may agree with this point, a number of authors have pointed out that this is not necessarily true.

The author of a 1993 study noted that “instead of a single commander responsible for providing all theater logistics support, the theater army commander may have anywhere from three to seven or more support organizations to command and control” (Newman, 1993:9). Citing a DRAFT Army Field Manual, 100-5, Operations, Newman concluded that:

Full integration of supply and transportation functions into a vertically and horizontally integrated distribution system is critical...this provides total asset in-transit visibility...unit-configured pre-packaging of supplies in CONUS for throughput prevents the need for breakbulk operations and in-theater repackaging (Newman, 1993:36).

It is worth noting that the writers of this DRAFT 1993 Army Field Manual recognized the importance of preventing the need for breakbulk operations and in-theater

repackaging. Ironically, this very concept was not implemented during OEF and OIF until the pure pallet program was devised, more than a decade after Newman's study.

Warren (1994:21) highlighted the importance of suboptimization avoidance.

“Orchestrating all theater logistics functions to ensure that optimizing one function does not adversely [a]ffect another is what may be referred to as suboptimization avoidance.”

Perhaps the following example from the Gulf War best articulates the *lack* of suboptimization avoidance:

These multi-consignee containers ensured ships were sent full and allowed significant manpower savings at ports of embarkation [POEs]. The transportation function had been effectively optimized. When the multi-consignee containers were received in the theater, they demanded a huge effort to sort for the numerous units for onward shipping. The result was not an overall savings of manpower but a movement of manpower requirements from the stateside POEs to the place where it was least needed – the theater or operations. Theater ports of debarkation [PODs] became clogged with frustrated shipments and units undoubtedly ordered duplicate material under high priority requisitions thus spreading the suboptimization to the air channels. In this case, the Central Command J4 set a limit on the proportion of multiple consignee containers that could be shipped from CONUS and directed the components to adhere to his limit” (Warren, 1994:21-22).

It is worth emphasizing, once again, that Warren's discussion regarding the problem of multi-consignee containers in theater surfaced again while supporting OEF and OIF, a decade later.

One of the most monumental pieces of literature, which was arguably ahead of its time, is a monograph published in 1994 by a School of Advanced Military Studies graduate. In the process of exploring the possibility of extending USTRANSCOM's responsibilities beyond the ports of debarkation (PODs), Layer points out that “the boundary, which gives the ‘strategic’ leg to USTRANSCOM and leaves the operational and tactical distribution role to the theater commanders’ infrastructure, may reflect

tradition and institutional convention more than it reflects logistics reason” (Layer, 1994:2). While a number of authors’ points are congruent with Layer’s (Redlich, 1992; Newman, 1993; and Warren, 1994), Layer points out exactly why “two cavernous divides block the road to integrated logistics.”

They are divisions between services and divisions between the three levels of logistics [strategic, operational, and tactical]. The former [divisions] result from statutory obstacles, specifically title 10 of the U.S. Code, and the latter [divisions] result from the natural tendency to treat the logistics apparatus at each level of war as a unique and isolated system. These two conditions propel each service toward the development of its own logistical stovepipe which is in turn divided into three separate parts (Layer, 1994:14).

Layer also noted that “filling a single container with goods for multiple consignees made good sense to the ‘strategic’ logistician. Yet, the same act defied the logic of the ‘operational’ logistician” (Layer, 1994:27). It appears that Layer is suggesting the DoD should migrate to one integrated logistics system.

While allowing for limited integration at that time, Joint and Service doctrine fell far short of creating a seamless distribution system. Layer submits that “because its assets and systems play a dominant role in the operational distribution system, the command [USTRANSCOM] must play a more commanding role in theater design and forward distribution activities” (Layer, 1994:28-29).

Layer’s underlying proclamation is that USTRANSCOM’s role must be broadened in order to institutionalize a fundamental single logic that guides the process of physical distribution throughout the system. More specifically, “USTRANSCOM should own the US operational distribution system. Correspondingly, their responsibilities should expand beyond the PODs to the ‘place to act’.” Layer concludes by warning that “until the logistics might of the United States is integrated from fort to

foxhole, the true effect of a unified transportation command will remain untapped” (Layer, 1994:37). Given the review of the literature up to this point, it certainly appears that the DoD has a poor track record of customer service and has not adequately capitalized on the lessons learned, which by definition, if not learned, are mere observations. Ironically, ten years would pass until Layer’s proclamation became a reality when USTRANSCOM was designated as the DPO.

Learning the Hard Way.

While these logistics experts and scholars continued to publish works highlighting the inefficiencies of the distribution system, and offering ways to improve customer service, their intended audience—leaders of the Armed Services—who could have benefited the most from these publications, were busy finding ways to bypass the system by creating local solutions rather than implement viable long-term global solutions. “Problems with the global distribution system persisted throughout the 1990s, despite individual service-specific successes (e.g., the Army’s Velocity Management Initiative, the Air Force’s Lean Logistics, and the Marine Corps’ Precision Logistics)” (Robbins, Boren, and Leuschner, 2004:viii).

It is important to note why each service embarked upon its own process improvement initiative aimed at streamlining the distribution of supplies to their customers. While each service may have achieved what might be considered success from individual service perspectives, it is their collective lack of suboptimization avoidance (recall Warren’s 1994 study) that prevented the Defense distribution system from effectively or efficiently meeting the needs of its customers. “The unreliability of

the military service caused many customers to turn to better – and more expensive – distribution modes, such FedEx and Worldwide Express.” (Robbins, Boren, and Leuschner, 2004:viii). Decreasing customer confidence was especially a problem for military air and had unintended negative effects. “The loss of customers contributed to the underuse of military air cargo capacity and caused reverberations for the wartime readiness of air crews and ground elements, which rely on peacetime missions (and funds they bring in) to support their wartime training” (Robbins, Boren, and Leuschner, 2004:viii).

What is most fascinating about this point is that, despite the efforts of TQM, a customer service focus seemed to evade USTRANSCOM until a major problem surfaced, namely air crew readiness, which threatened the Command’s ability to perform if tasked to support significant airlift operations. “It was these disturbing trends that led leaders of TRANSCOM and DLA to join forces in 2000 to seek improvements, with RAND’s assistance” (Robbins, Boren, and Leuschner, 2004:viii). The resulting Strategic Distribution (SD) program (previously named Strategic Distribution Management Initiative, or SDMI) proved to be the foundation for a collaborative customer service-oriented focus to provide the best possible support to combatant commanders.

The keys to successful implementation of the SD program were the “3 S’s” of stock positioning, schedules, and synchronization. As the names suggest, the vision was to relocate DLA-owned stocks to a location closer to global customers (stock positioning), to ship supplies from the depots using dedicated trucks (schedules), and to time the delivery of supplies to ports of embarkation to better coincide with scheduled channel missions (synchronization). “Through the strategic management of resources,

the Defense distribution system was able to meet the challenges of OEF” (Robbins, Boren, and Leuschner, 2004:ix). However, support for OIF proved to be more challenging.

Creation and Execution of the Pure Pallet Program

Recall that the USTRANSCOM Commander was designated as the Distribution Process Owner in September 2003. Shortly thereafter, a collaborative effort to improve the distribution system ensued when, in January, 2004, the CENTCOM Deployment Distribution Operations Center (CDDOC) was established at Camp Arifjan, Kuwait. “USCENTCOM, in partnership with USTRANSCOM, DLA and other national providers, [took] recent steps to transform the deployment and distribution process and eliminate the seams between strategic and operational logistics” (USTCNS, 2004).

This measure was necessary as OIF was rather unique compared to other U.S. military engagements. Combat forces covered great distances and placed a great strain on those forces providing logistics support. “The combat forces often outran their supply lines in part because the logisticians used separate information and communication networks that were out of range of their higher headquarters” (Walden, 2006a:252-253). What is interesting is that “distribution performance problems began early in OIF, even before the start of major combat operations, and extended well into stability operations. Until late 2004, total distribution times were long and highly variable, and early on there was a high rate of shipments that never made it to their intended destination” (Robbins, Unpublished:xvi).

A large increase in volume and steady deterioration in distribution time occurred early in 2003 and continued until November. “Much of the deterioration in performance was associated with an inability to sufficiently expand capacity and processes that were not robust in the face of dynamic change with respect to customers and delivery locations” (Robbins, Unpublished:xvii).

While it was agreed that many of the distribution problems could be attributed to delays in establishing the Theater Distribution Center (TDC) and a shortage of vehicles to perform convoy operations, they were not the most significant sources of poor distribution performance. “Rather, the majority of the distribution problems found their source farther upstream in the system, at the point where materiel was issued and packed for shipment” (Robbins, Unpublished:xviii).

If resupplied from CONUS via air mode, deployed forces generally receive pallets which are built at either DLA-owned facilities or AMC-owned aerial ports as illustrated in Figure 1. Materiel stocked by DLA-owned facilities is shipped to one of Defense Distribution Center’s (DDC) Consolidation and Containerization Points (CCP), provided it is not already stored there (recall the “Storage” aspect of the Strategic Distribution (SD) program). The materiel is then, as the name suggests, consolidated and containerized (or palletized), and finally shipped to a port of embarkation, which in this case is an Aerial Port of Embarkation (APOE). Pallets originating from a DLA-owned CCP are referred to as MILALOC pallets or ALOC for short (Military Air Lines of Communication). The ALOC pallet is then shipped via AMC-owned (or contracted) airlift to the theater, where it is distributed to its final destination via either air or surface intratheater lift, as seen in Figure 2.

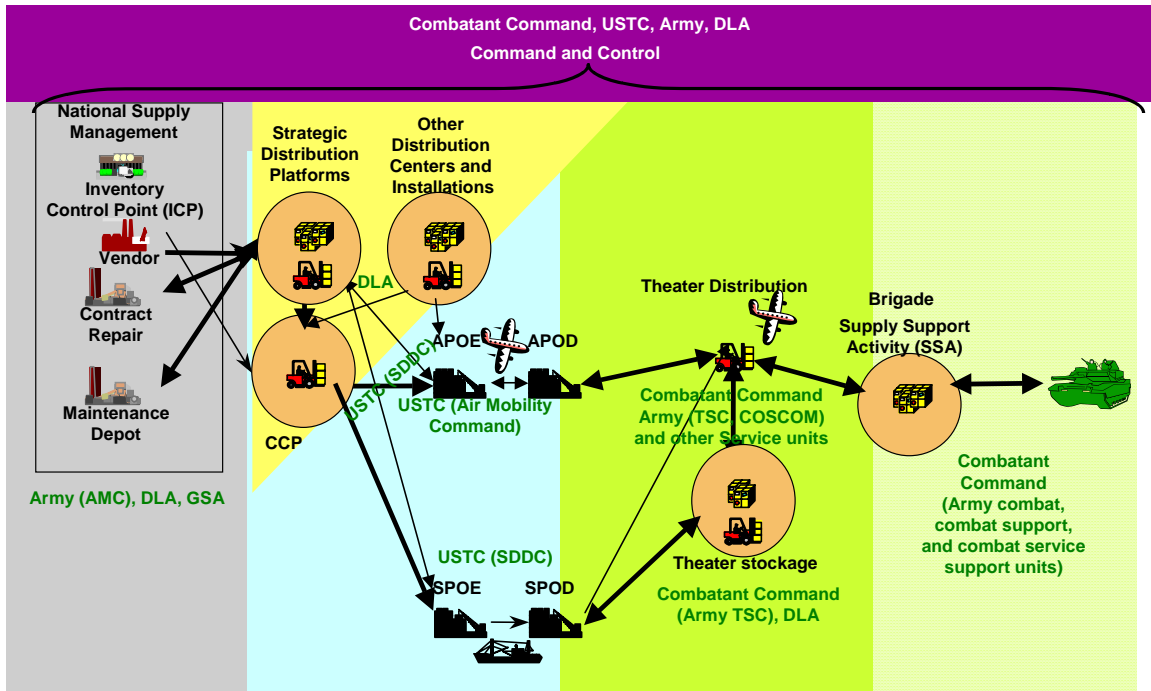


Figure 1. The DoD Supply Chain (Robbins, Unpublished:3)

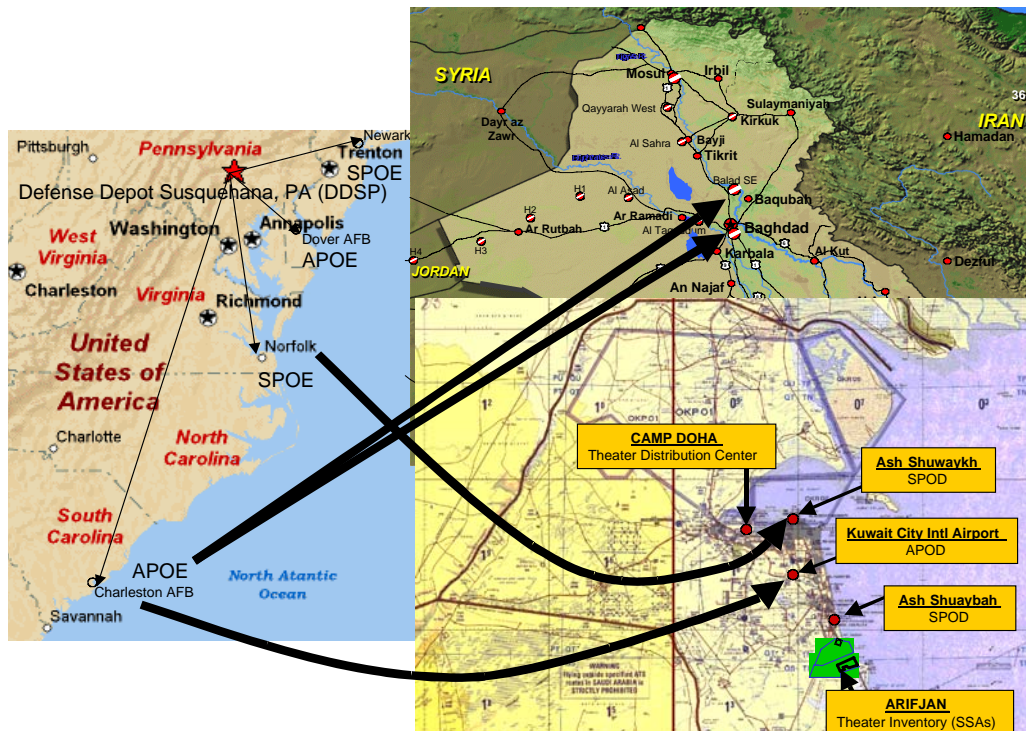


Figure 2. Strategic Distribution from CONUS to the OIF Area of Operations (Robbins, Unpublished:14)

Materiel requiring special handling, such as hazardous materiel and oversized or outsized cargo, is shipped to aerial ports. It is worth noting that aerial ports also handle what is called *general cargo* (almost all DLA-shipped items are considered *general cargo*) or cargo that does not necessarily require special handling. For purposes of efficiency, DLA-owned facilities do not send loose *general cargo* to the aerial ports for palletization; however circumstances can and do occasionally arise which require temporary exceptions. *General cargo* at the aerial ports usually represents materiel procured through commercial means such as the government purchase card. In this capacity, aerial ports serve as the equivalent to a DLA-owned CCP, though not so designated.

As mentioned previously, many of the distribution problems began at the place of issue (depot only as aerial ports do not even store items to be issued) and packaging for shipment (depot *and* aerial ports). For depots, according to the Army, the standard peacetime practice was to build Supply Support Activity (SSA)-pure multipacks and pallets designated for a single SSA and its supported units (see Figure 3). Ironically, it was later learned that a series of miscommunications between the Army and DLA would serve as the source of frustrations to be shared during OIF among both customers and logisticians alike. In reality, DLA did not built MILALOC pallets in this manner (SSA-pure multipacks) and the Army assumed that the reason for not doing so was a lack of sufficient cargo generation (Robbins, Unpublished:39-45).

As for the aerial ports, the practice of building SSA-pure pallets was not recognized. Aerial ports simply did not have the facility capacity to do so, nor would the issue have been raised since the underlying purpose of the MILALOC program is to

provide direct support from the depot to the Army customer (recall Gamino's 1977 study). In fact, normal aerial port business operating rules require pallets to be built with cargo destined to the same Aerial Port of Debarkation (APOD). For example, if an Air Force unit located at Kuwait International Airport (KWI) requisitioned an item, it would be palletized with an item requisitioned by an Army unit, who may operate hundreds of miles from the APOD. The rationale was that both requisitions were being shipped to the nearest *servicing* APOD. More importantly, building pallets in this manner ensured a high rate of pallet utilization, which subsequently ensured high aircraft utilization rates. This underlying business rule exists to make the most *efficient* use of the country's precious airlift resources.



Figure 3. Examples of a Multipack and a Pallet (Robbins, Unpublished:38)

It is not surprising, then, that “during OIF, multipacks and pallets often contained materiel intended for shipment to multiple SSAs” (Robbins, Unpublished:xviii), as shown in the far left illustration of Figure 4. These mixed pallets were not identified at theater hubs, which created further problems downstream as pallets made their way to the end user. A point of interest is that “even pallets with items for multiple SSAs within a single division created problems (see center illustration of Figure 4, and upper right and lower left illustrations of Figure 5), as no divisional organizations are designed to execute the mission of unpacking the pallets and boxes, and re-sorting and repackaging the materiel or delivery to the intended SSAs” (Robbins, Unpublished:xviii-xix).

Figure 6 illustrates the early stages of the distribution system, during which time the depots built geographic specific (geo-specific) pallets. Even though cargo generation certainly would have allowed the pure pallet methodology to be employed, it was the misunderstanding between DLA and the Army mentioned previously that precluded earlier program implementation.

The consequences of this geo-specific pallet building methodology were long delays and lost requisitions. Quite frequently, requisitions were made by the customer, issued and packed from the source of supply (SOS), and shipped through the distribution system, never delivered to the end user—at least according to the Radio-Frequency Identification (RFID) technology used to provide in-transit visibility (Robbins, Unpublished). Such an example can be seen by looking at the far left of the three RFID tag summary boxes in Figure 7. In this example, a pallet with RFID tag number 584796 left the Balad Corps Distribution Center on day 9 August 2003 (Day 221). The pallet contained supplies for two units in different divisions, which were geographically

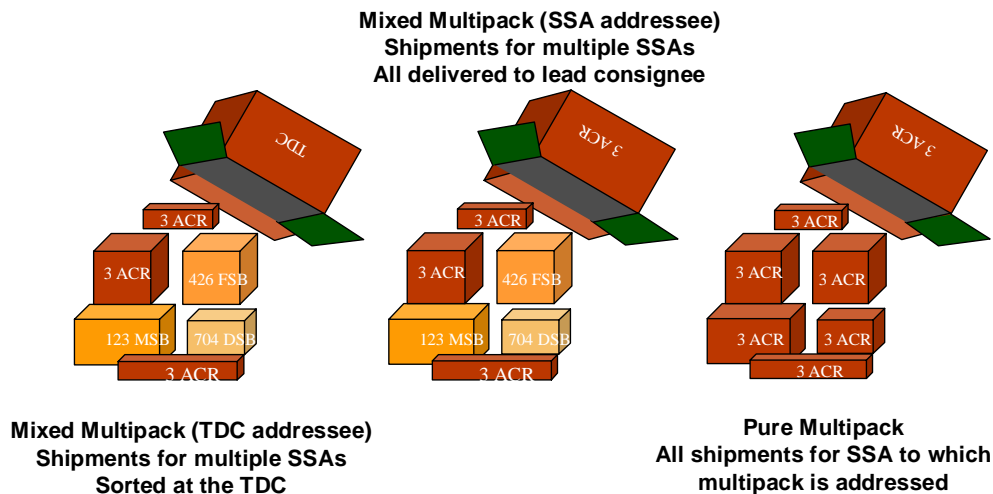


Figure 4. Three Different Multipack Types (Robbins, Unpublished:47)

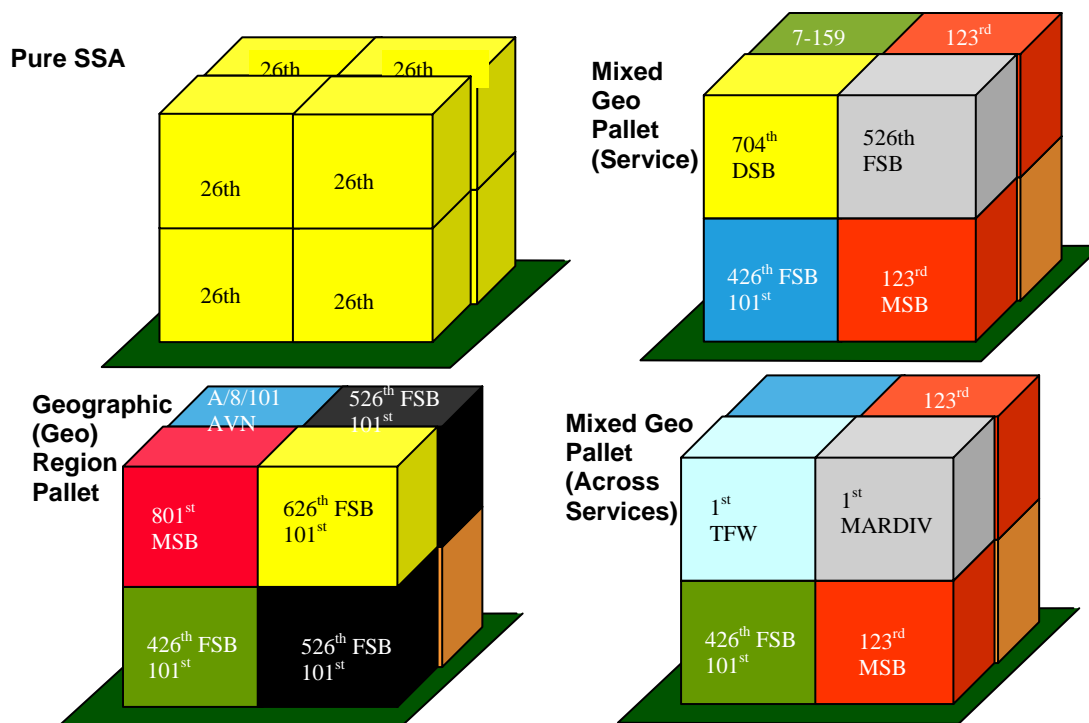


Figure 5. Four Different OIF Army Cargo 463L Pallet Configurations (Robbins, Unpublished:73)

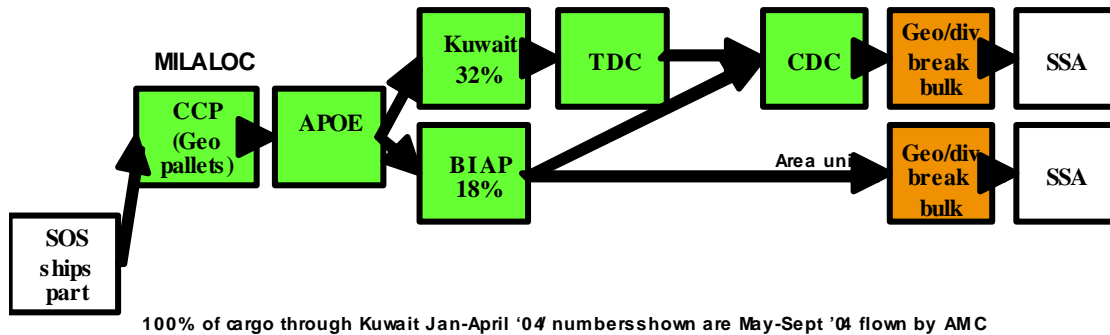


Figure 6. Early Theater Distribution System (Robbins, Unpublished:80)

separated. The pallet was shipped via convoy to Al Asad, where the 3ACR unit was based. Since the theater distribution system was not designed to subsequently move supplies intended for the 404GRD unit based in Tikrit, the 404GRD essentially never received their supplies. This is evidenced by the blank red highlighted areas within the D6S column, which represents a customer receipt confirmation within RAND's Strategic Distribution (SD) database (USTCJ5-SM, 2005). What is interesting is that the supplies were still not received by 22 September, 2003 (Day 265), the date on which the data were collected for this specific example. This is a difference of *at least 44 days* from when the 3ACR received its supplies (Day 223) to when the 404GRD unit *could have* received its supplies (no earlier than Day 265)—if ever received at all.

This created a burden for an immature theater as initial TDC operations were “staffed by borrowed military manpower for the first two to three weeks; this meant having to train the non-logistics ‘volunteers’” (Walden, 2006b). Correspondence between this author and Colonel Joseph L. Walden can be found in Appendix A. Walden

was instrumental in activating the TDC in Kuwait in 2003, three weeks before the ground war in Iraq.

These conditions continued until the TDC, with its limited manpower, could no longer effectively receive and repackage the amount of supplies required to support a larger force, which was deployed to combat the Iraqi insurgency at the time. These problems were addressed, and as time passed, improvements in the distribution system began to surface, as described later.

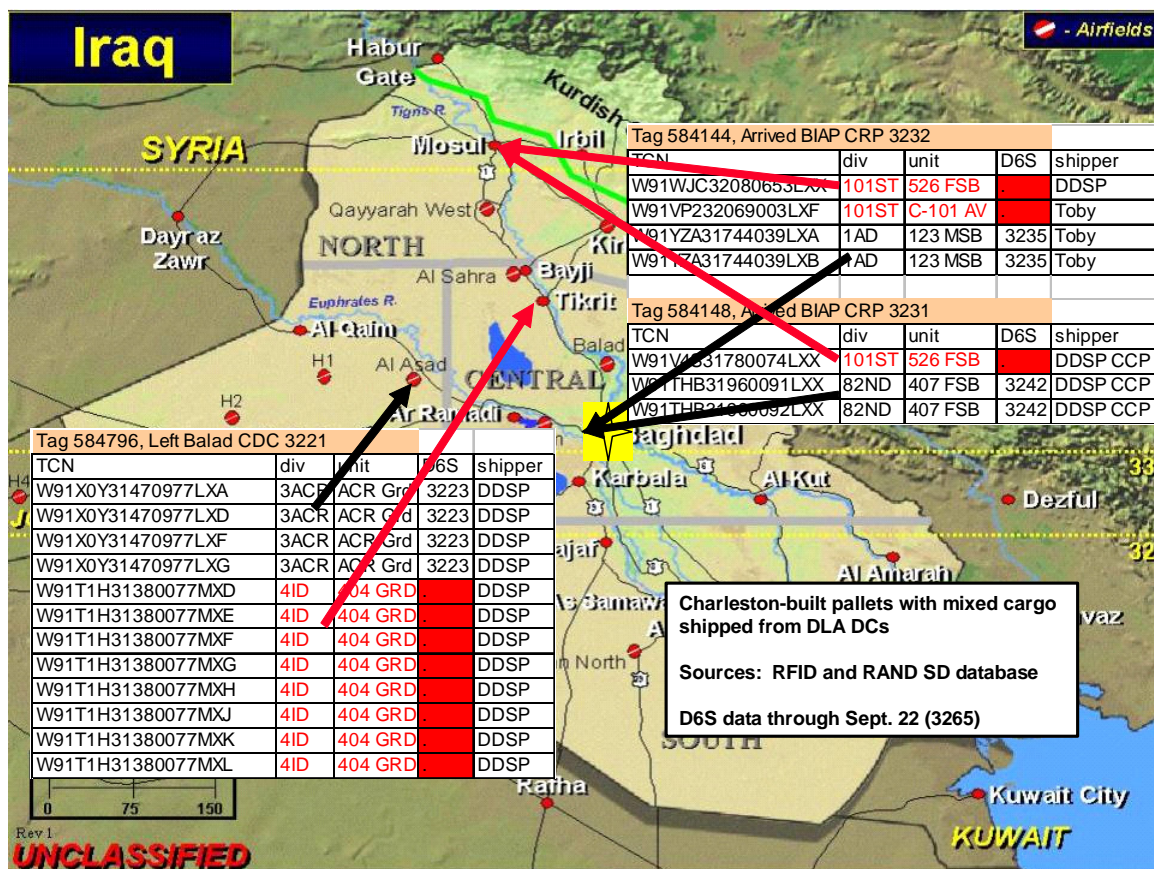


Figure 7. Example of Mixed APOE-Built Pallets (Robbins, Unpublished:94)

The TDC then began to see *service pure* pallets (see upper right illustration of Figure 5), which still required them to be broken down into *customer pure* pallets—or

what is known today as a pure pallet (see upper left illustration of Figure 5). “For the large stuff, this was not a problem. For smaller stuff in multi-packs, this meant having to sort several hundred from the “service pure” multi-packs into unit boxes/pallets” (Walden, 2006b).

After some time, the TDC began to see pallets that were pure by Division. “This still meant breaking the multi-packs into customer (Brigade) boxes. Eventually, in November 2003, the TDC convinced DLA to pick and pack requisitions by supporting SSA DoDAAC and to hold pallets a couple extra days in order to create ‘pure pallets’,” as shown in Figure 8 (Walden, 2006b). Doing so enabled the TDC to cross dock the pure pallets, which led to considerably reduced processing times (Walden, 2006b). A number of pure multipacks, seen in the far right illustration of Figure 4, constitute a pure pallet, seen in the upper right illustration of Figure 5.

In January of 2004, the U.S. Marine Corps developed their version of the pure pallet plan. The business operating rules were, and still are, to let cargo accumulate for a maximum of five days for Army cargo and three days for Marine Corps cargo (HQ AMC/A43, 2005). In the March-April 2004 timeframe, AMC changed its normal pallet building methodology described earlier to the pure pallet methodology employed by DLA since November 2004. The theater distribution system evolved as load configurations and APODs changed, as seen in Figure 9.

Since the long pole in the tent was the theater movement segment which provided the greatest potential for improving overall end-to-end distribution times, the intended effect of the program was to reduce total time from customer requisition to fulfillment, commonly referred to as *factory-to-foxhole*. The events just discussed and their effects

One day of CCP pallet build for four high volume supply support activities:

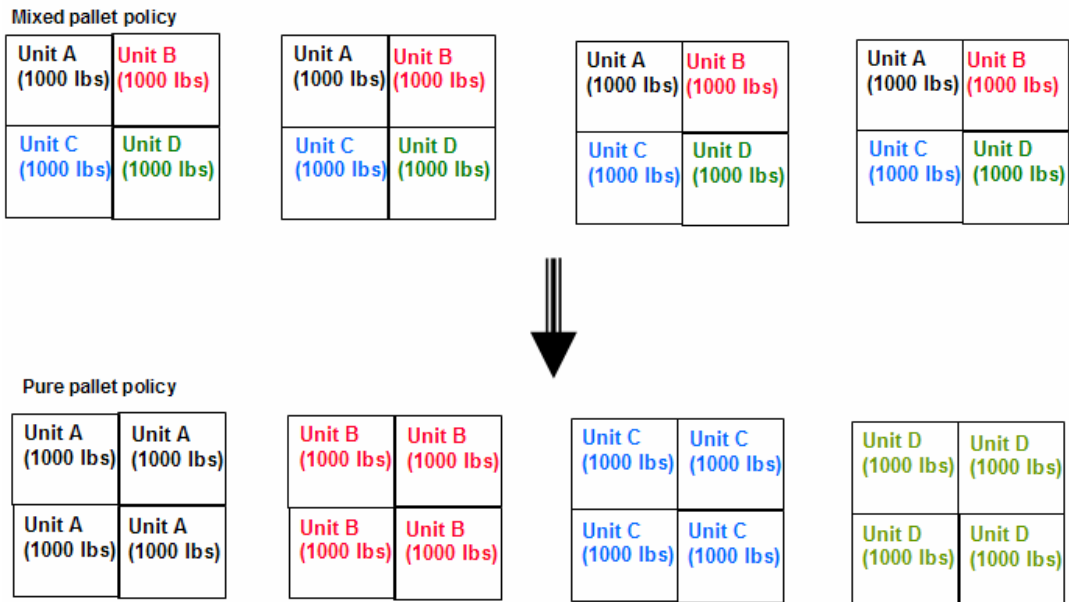
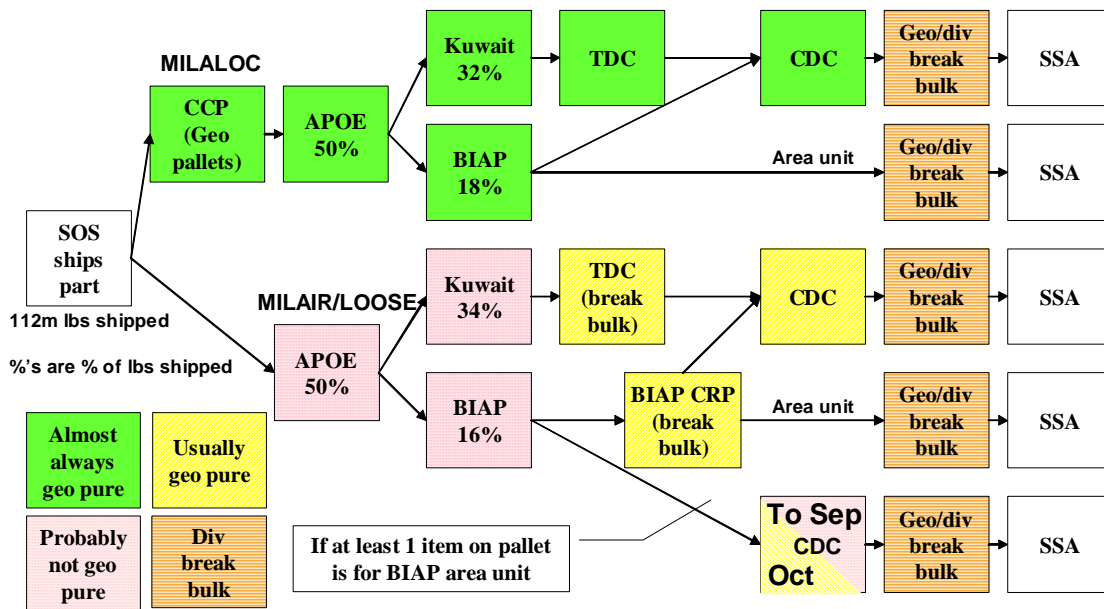


Figure 8. Comparison of Pallet Building Methodologies (Robbins, 2006)



100% of cargo through Kuwait Jan-April/ numbers shown below are May-Sept flown by AMC

Figure 9. Evolved Theater Distribution System (Robbins, Unpublished:92)

on theater movement and receipt times are illustrated in Figure 10. Note that the MILALOC (built at DLA-owned depots) and MILAIR (built at AMC-owned Aerial Ports) pure pallet theater distribution and receipt times nearly converge, whereas MILALOC pure pallets had previously considerably outperformed the MILAIR pure pallets with respect to theater movement and receipt times.

The stewards of the country's precious airlift resources were greatly concerned with its efficient utilization as evidenced by a previous discussion regarding aerial port-built pallet methodology—efficiency was the primary focus. Interestingly enough, pallet

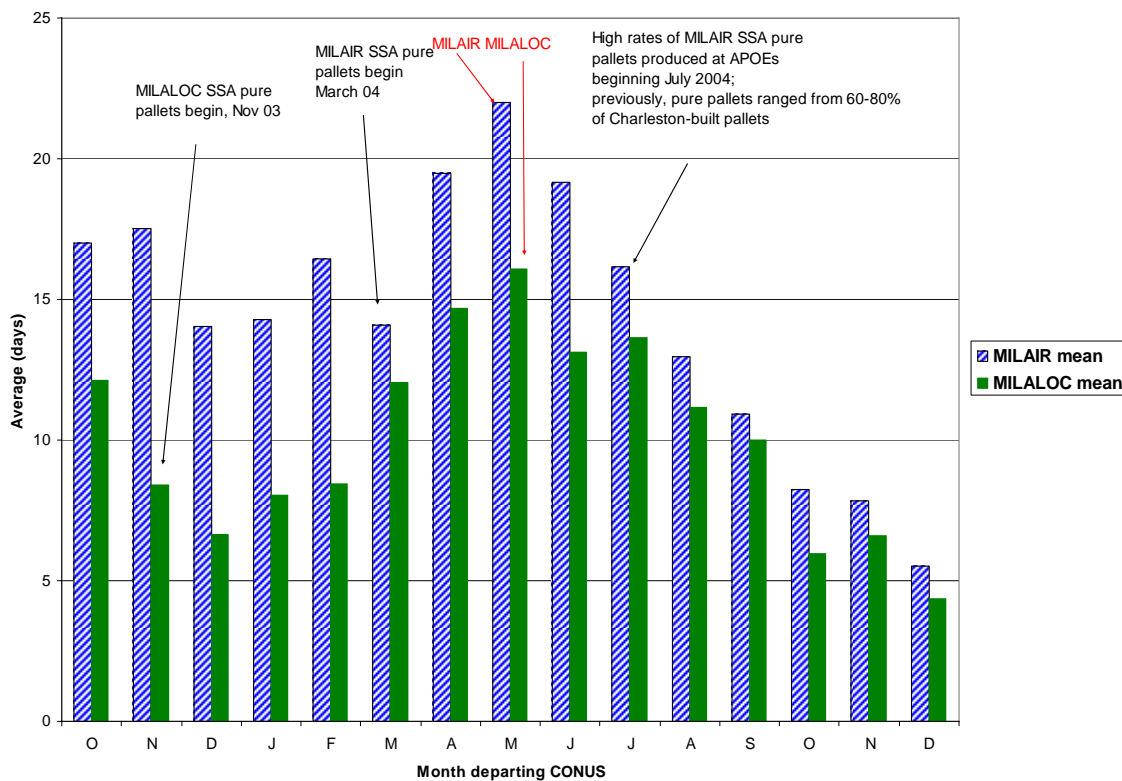


Figure 10. OIF Theater Movement / Receipt Times (Robbins, Unpublished:100)

weights did not decrease as a result of implementing the SSA-pure pallet policy, which can be seen in Figure 11. Average MILALOC segment times from the period October 2004 to August 2005 were compared to the period September 2005 to October 2005. Down from an overall 16.9 days to 12.1 days, implementation of the pure pallet program yielded a significant reduction of 4.8 days in end-to-end distribution times, as seen in Figure 12.

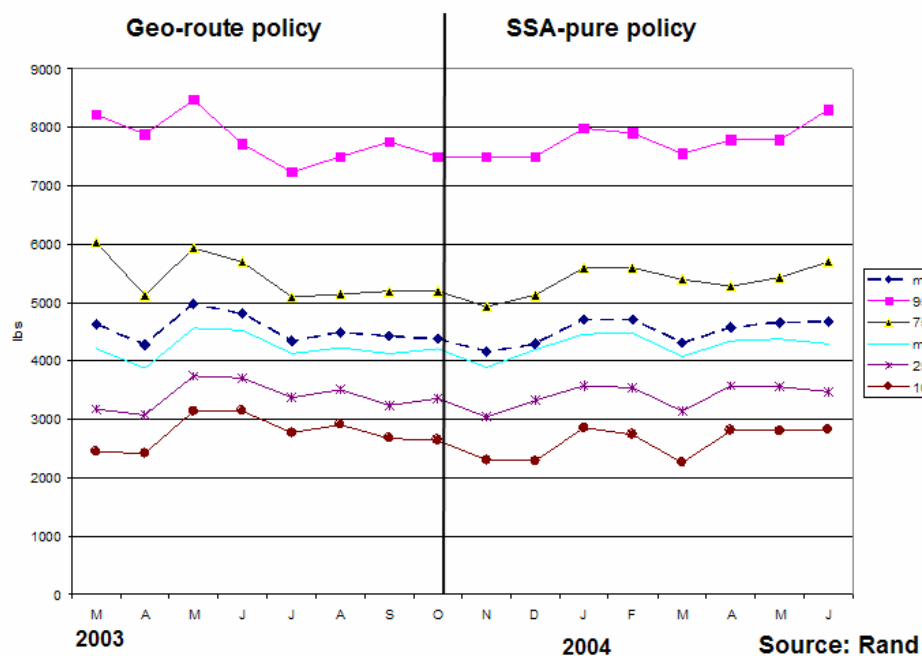
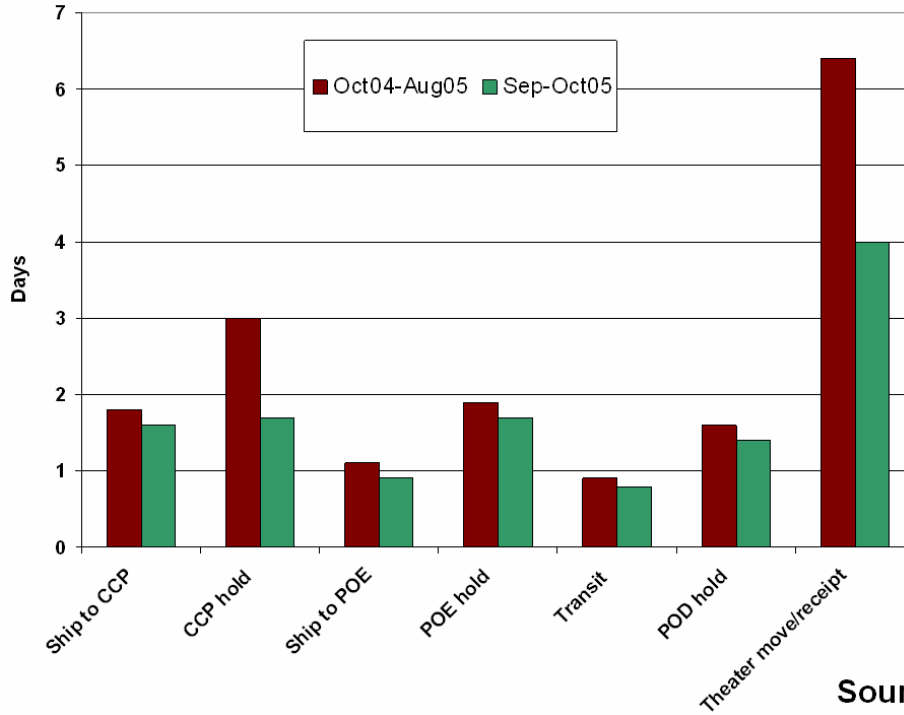


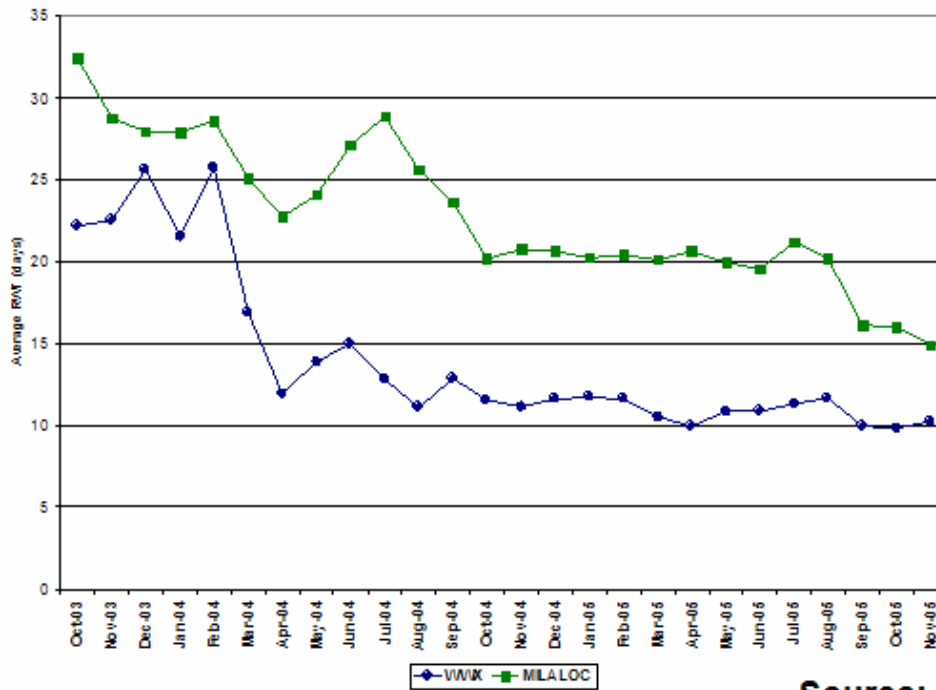
Figure 11. Effects of SSA-Pure Pallet Policy on Pallet Weights (Robbins, Unpublished:89)

A closer examination of end-to-end distribution times for both MILALOC and the more expensive WWX shipments to Kuwait and Iraq during the period 2002-2005 reveals that MILALOC times have decreased to the point where a case can be made that performance levels for both distribution methods converge to levels comparable to each other (see Figure 13).



Source: Rand

Figure 12. Average MILALOC Segment Times
Oct '04 – Aug '05 Compared To Sep – Oct '05 (Robbins, 2006)



Source: Rand

Figure 13. Average WWT and MILALOC RWT for Kuwait & Iraq, Oct '03 – Nov '05
(RAND, Unpublished)

Given the performance indicators illustrated, it is natural to conclude that the pure pallet program was indeed successful as it achieved its intended effects, namely a reduction in end-to-end distribution times, with the greatest savings realized in the theater distribution and receipt segments. However, it is very important to point out that there were many variables which contributed to success of the pure pallet program. The reduction of end-to-end distribution times should not be attributed solely to the pure pallet program. While the use of pure pallets to distribute supplies to the warfighters in Iraq certainly had a positive effect on end-to-end distribution times, continually evolving and dynamic situations required the creation of additional innovative ideas in order to maintain these low distribution times (Robbins, Unpublished).

The benefits of improved end-to-end performance were further realized when the Convoy Mitigation Plan was implemented in February 2005 along with the establishment of a DLA-owned Defense Depot in Kuwait (DDKS) in April 2005 (Robbins, Unpublished). The Convoy Mitigation Plan, which entailed opening up more APODs in theater, was implemented in response to the increased threat to intratheater convoy operations. DDKS was established under the Strategic Distribution's principle of *Stock Positioning* described earlier. The Convoy Mitigation Plan and the establishment of DDKS led to a further reduction in end-to-end distribution times by 40%, which can be seen in Figures 14 and 15. Finally, the timeline seen in Figure 16 is provided to recap the discussion on customer-oriented process improvements, including implementation of the pure pallet program, which further streamlined the distribution process by reducing end-to-end distribution times.

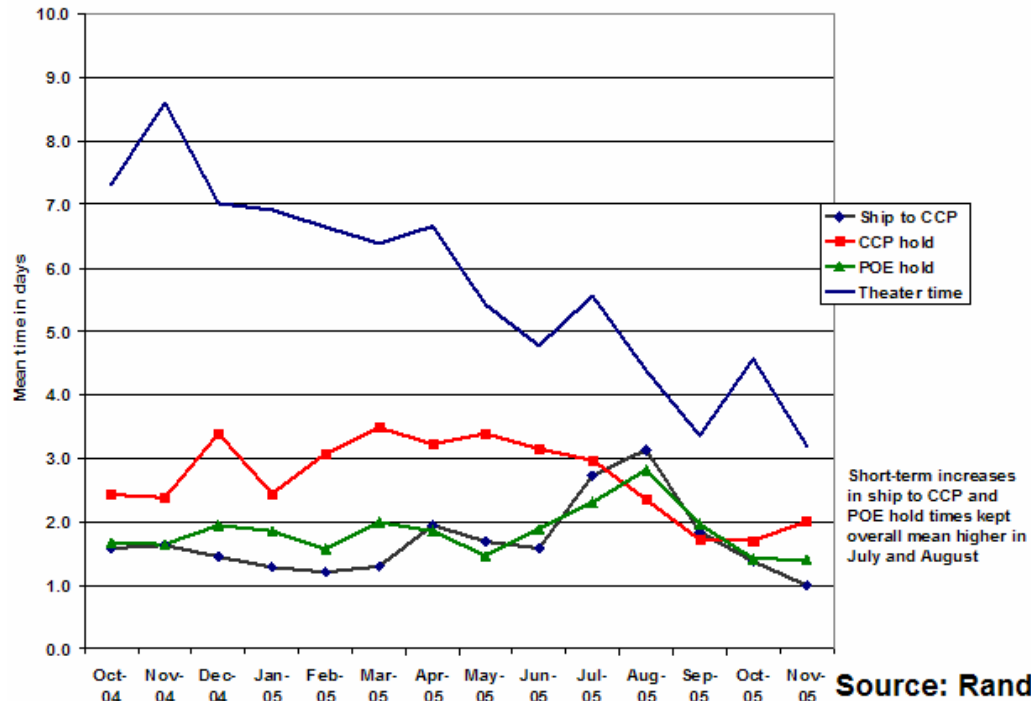


Figure 14. MILALOC Times Associated with Improved Theater Processes and Recent CCP Gains (Robbins, 2006)

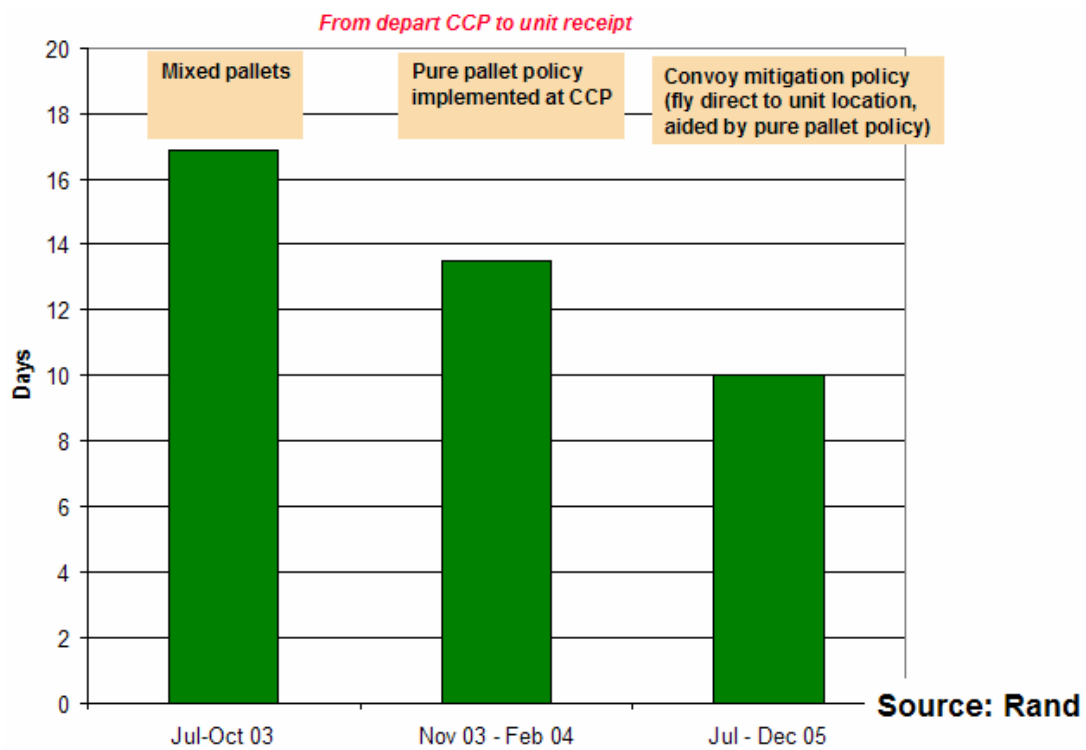


Figure 15. Pure Pallets & Convoy Mitigation Yields 40% Performance Improvement (Robbins, 2006)

Summary

Divided into three main parts, this chapter built a foundation from which to conduct this research effort. The first part of the chapter briefly discussed the seminal literature in the realm of customer service. The literature exposed a common philosophy that *organizations exist to serve customers*. This part of the chapter also provided the reader a very broad overview of customer service from which to understand and apply a similar focus within the DoD.

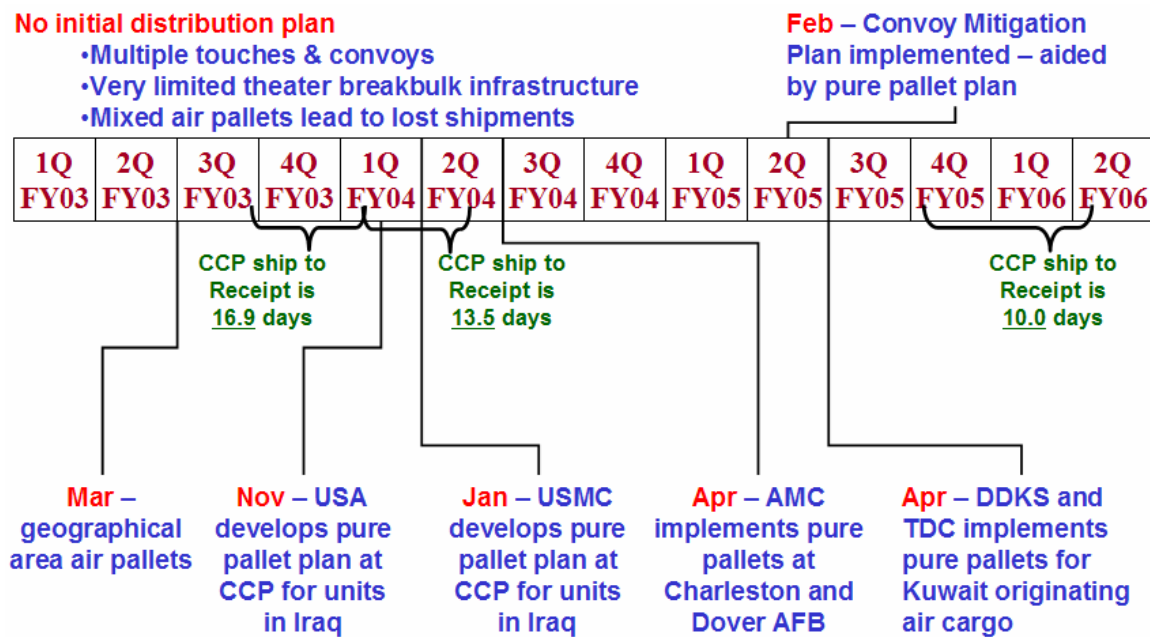


Figure 16. Distribution Process Improvement Timeline (Robbins, 2006)

The second part of the chapter examined the literature pertaining to customer service in the DoD. Numerous studies were conducted pertaining to customer service before the advent of TQM. A few distinct authors (Redlich, 1992; Newman, 1993; Warren, 1994; and Layer, 1994) challenged existing doctrine at the time and proposed a

number of solutions which took at least ten years to come to fruition. Meanwhile, customer service once again became a focus in the DoD in 2000 when TRANSCOM and DLA partnered to champion the Strategic Distribution program, the concepts of which proved successful in support of OEF.

The third part examined the circumstances leading to the creation of the pure pallet program, which included an examination of pallet building methodologies. Exactly how the pure pallet program works was also examined in detail and evolution of the theater distribution system was also illustrated. Finally, a series of figures were provided to illustrate improvements in the effectiveness of the distribution system, while not negatively affecting its efficiency.

The first two investigative questions were addressed in this Literature Review, and the next chapter will focus on the methodology employed to address the remaining investigative questions.

III. Methodology

Introduction

The goals of this chapter are to provide a detailed account of the methodology employed. This chapter begins with a brief review of the research and investigative questions in order to provide focus for the methodology discussed throughout the chapter.

The second part of the chapter focuses on the survey method used. The survey is described in great detail and includes discussions on the justification for using a survey; the survey population; the survey frame; the actual sample used; coverage error; and survey instrument review. Both parts of the survey are also discussed in great detail as well as the reasons for not conducting a pilot test.

The third part of the chapter discusses data collection procedures. Specifically, details regarding the initial review of the list of names and associated Air Force Specialty Codes (AFSCs) and reasons for deleting certain members from the sample are provided. The specifics of the first and second initial email waves as well as the reminder email wave are then discussed.

The fourth part of the chapter takes a look at the measures developed to assess the perceptions of the pure pallet program. Validity and reliability of the survey instrument are addressed as well.

The fifth part of this chapter describes the data analysis techniques employed in this research, which include exploratory factor analysis, the Analysis of Variance

(ANOVA), the Tukey-HSD and Games-Howell multiple comparison tests. The Statistical Program for the Social Sciences (SPSS) program was used for all data analysis procedures.

The sixth, and final, part of this chapter addresses the assumptions and limitations of the methodology employed herein.

Review of Research and Investigative Questions

The first part of the research question asks if the pure pallet program is working as intended and was addressed via two investigative questions. The first investigative question asked what events led to implementation of the pure pallet program. The second investigative question asks how effective was the pure pallet program in reducing the total time elapsed from a customer requisition to fulfillment. Both investigative questions were answered through the discussion in the review of literature.

The second part of the research question asks if there is a perception problem among the Air Force personnel involved in program implementation and will be answered via investigative questions three, four, and five. The third investigative question asks what percentage of the population of Air Force Air Transportation Specialists, AFSC 2T2X1, and Logistics Readiness Officers, AFSC 21RX, has been exposed to the pure pallet program. The fourth Investigative Question asks what are the perceptions of the 2T2s and 21Rs who are, or have been, involved in pure pallet program implementation. The fifth Investigative Question asks what specific recommendations do 2T2s and 21Rs involved in the pure pallet program have that could improve its

implementation. These three Investigative Questions will be answered by administering a survey specifically designed to measure the perceptions of 2T2s and 21Rs.

The Survey

The remaining three investigative questions were answered by developing and administering a survey specifically designed to measure the perceptions of 2T2s and 21Rs regarding pure pallet program implementation.

Justification.

A web-based survey was selected as the primary method of data collection, due to the ability to economically collect large amounts of data in a short period of time. The large segment of the research population permitted to be sampled economically outweighed possible problems of nonresponse and misinterpretation associated with employing a web-based data collection instrument.

Survey Population.

As defined by Dillman, “the survey population consists of all the units (individuals, households, organizations) to which one desires to generalize survey results” (Dillman, 2000:196). In this case, all 2T2s and 21Rs in all components of the Air Force who have knowledge of and/or experience with the pure pallet program represent the survey population. The entire population 2T2s and 21Rs were surveyed since it was not possible to determine which personnel had pure pallet program experience. It should be understood that the data collected would include responses from personnel who do not have pure pallet program experience. Therefore, only those

respondents who reported having pure pallet program experience would be considered for purposes of this research effort.

Coverage Error.

As defined by Dillman, “coverage error results from every unit in the survey population not having a known, non-zero chance of being included in the sample” (Dillman, 2000:196). A listing of all members of the survey population was generated from the Air Force’s personnel data system and provided by the Air Force Surveys Office. All members had an email address on file, which allowed the possibility to contact each one within the survey population in order to reduce coverage error.

Survey Instrument Review.

Web-based surveys, while easy and economical to use, must still meet certain principles (Dillman, 2000). These design principles discussed below were implemented to ensure efficient use of the survey instrument in this study’s methodology. Four of the five design principles listed by Dillman (2000:377-385) were used in this research.

Specifically, the web-based survey was designed by making the questions appear the same for all respondents, which displayed a group of six questions at a time (with exceptions of screens three and four as discussed later). Each set of questions was viewable on one screen without having to scroll down, thereby enhancing the look and feel of the survey. Once finished with a screen, the respondent could click the ‘Next’ button to move on to the next screen of six questions. When designing a web-base survey, it is best to keep graphics and special functions simple, which increases the likelihood that all respondents can view the survey. Utilizing AFIT’s own Web Survey –

Information Retrieval System (WebSIRS), the web-based survey used for this research was built using the most common fonts and functions, which include hypertext markup language (HTML), drop-down menus, radio buttons, and unlimited space to provide comments for open-ended questions. The survey was viewed on multiple computers to ensure it appeared the same way each time. Actual screen shots of the survey are located in Appendix B.

The Survey Instrument.

A link to the two-part web-based survey, which consisted of 51 questions spread over eleven different screens, was included at the bottom of an email, the body of which was a cover letter similar to those found in traditional mail surveys. The cover letter explained the purpose of the survey and that the results would be reported in aggregate form. The respondent was informed that Air Mobility Command's Air Transportation Division (AMC/A43) sponsored this research. The letter also made clear that survey participation was strictly voluntary and completely anonymous. Finally, the cover letter indicated that the survey was approved by the Air Force Surveys Office (AFPC/DPAPS) and assigned Survey Control Number (SCN) 06-001. The SCN approval and Institutional Review Board (IRB) exemption letters can be found in Appendix C.

After clicking the link at the bottom of the email (cover letter), an internet browser popped up showing screen one of the interactive web-based survey. Screen one served as a welcome screen which provided essentially the same information as the cover letter. Survey instructions and this researcher's full contact information were also provided. Found at the bottom of the welcome screen (screen one of eleven) was a

button which, when clicked, directed the respondent to screen two—the first six of nine demographic questions.

While it is believed that demographic questions should be placed at the end of a questionnaire to reduce respondent skepticism and increase cooperation (Alreck, 2004:155), the demographic questions were intentionally placed at the beginning of this questionnaire. The purpose for doing so was to prevent respondents from spending more time taking the survey than absolutely necessary, as some respondents, based on their answers to Item 8, would only complete seven items of the survey if they reported having no knowledge of or experience with the pure pallet program.

The first part of the questionnaire consisted of nine questions designed to collect demographic data on the survey respondents, which provided the groupings for the descriptive statistical analysis. This data were collected over three screens (screens two, three, and four of eleven), the first of which included Age (Item 1), Gender (Item 2), Rank (Item 3), Air Force Component (Item 4), Air Force Specialty Code or AFSC (Item 5), and Total Time in Service in years and months (Item 6). The second of such screens (screen three of eleven) had two questions.

The first (Item 7) was an interactive multiple response question designed to determine if the respondent, since January 2004, had been temporarily or permanently assigned to any number or combination of listed locations. These locations were considered by AMC/A43 to be involved in pure pallet program implementation. The second (Item 8) served as a discriminator by asking asked if the respondent had exposure to, or worked with, the pure pallet program, to include building, load planning, loading, or overseeing pure pallet program activities. Answering 'No' directed the respondent to a

thank you screen, signifying survey completion. Answering 'Yes' directed the respondent to the ninth demographic question on screen four of eleven, which asked the respondent at what functional level and for how long was exposure to pure pallet program gained.

As previously mentioned, demographic questions were placed at the beginning of the survey to limit the amount of time required for a given respondent to participate. This goal could not have been fulfilled if demographic questions were placed at the end of the survey. Certainly a more important goal was to prevent skewing of the data, which may have otherwise occurred if respondents, whom reported having no knowledge or experience with the pure pallet program, were permitted to answer any of the questions in the second part of the questionnaire (as well as the ninth demographic question in part one as described at the end of the previous paragraph).

The second part of the questionnaire, over the remaining seven screens, consisted of 42 items, the first 41 of which were actually statements that represent particular opinions. This scale allowed the respondents' degrees of agreement or disagreement to be obtained. For these 41 items, a 7-point Likert Scale ranging from 'Strongly Disagree' (value of 1) to 'Strongly Agree' (value of 7) was used, with a 'Neither' (value of 4) category also included for respondents who had neutral feelings toward the statement. The respondents' answers were in the form of coded data that were comparable and could be readily manipulated. The principle advantages of this scale include flexibility, economy, and ease of composition. The major advantage to this scale format was the ability to obtain a summated value, which was necessary for data analysis. Finally, question 42 (found on screen eleven of eleven) was an open-ended item which provided

the respondent an opportunity to provide feedback and specific recommendations for improving the pure pallet program. This specific item was designed to answer Investigative Question five.

No personally identifying information was requested in any part of the survey. Respondents were not required to identify themselves, however, for those that chose to identify themselves in the open-ended question (Section II, item 42), confidentiality was maintained by replacing the identifying information with 'XXX'. The intent was to maintain the authentic nature of all open-ended responses while not sacrificing readability. All responses to this open-ended question can be found verbatim (except as noted above) in Appendix D. Comments provided via email direct to the researcher are provided at the end of Appendix D as well.

Pilot Test.

As described earlier, it was not possible to determine which potential respondents had knowledge or experience with the pure pallet program without first asking them. Due to the specific nature and focus of this survey instrument, a pilot study was considered to not be a viable option. Instead, the research committee, a number of randomly selected peers, and an AMC/A43 representative identified problems with survey instructions, clarity, and intended purpose. The survey was adjusted accordingly prior to fielding. Very minor grammatical and word choice modifications were subsequently made to the survey, the most substantial of which was the decision to use a 7-point Likert scale for questions in part two, instead of a 5-point scale as originally designed.

Data Collection Procedures

The comprehensive list of 2T2s and 21Rs from all Air Force components was provided on 5 January 2006. The survey window was from 6 January to 15 February 2006.

Sample Review.

The list consisted of each member's Email Address, Organization Address, Duty Location, State/Country, Major Command (MAJCOM), Duty AFSC (DAFSC), Primary AFSC (PAFSC), Rank, and Full Name (First, Middle, Last, and Suffix). The list was specifically reviewed to determine which members of the sample should be deleted and, therefore, not invited to participate in the survey.

Of the 16,324 members on the list generated by the Air Force Surveys Office, 4,851 (29.7%) were Active Duty (AD) 2T2s; 2,098 (12.9%) were AD 21Rs; 1,865 (11.4%) were Air National Guard (ANG) 2T2s; 575 (3.5%) were ANG 21Rs; 6,274 (38.4%) were Air Force Reserve (AFR) 2T2s; and 661 (4.0%) were AFR 21Rs.

Criteria used to delete members from the sample were based on the member's DAFSC and PAFSC as indicated in the listing provided by AFPC. All members possessed a PAFSC of 2T2X1 (for enlisted) or 21RX (for officers). While the PAFSC is the primary means of identifying to which career field a member belongs, the DAFSC is the primary means of identifying what duties the member currently performs. While reviewing the sample list, it quickly became evident that a number of 2T2s and 21Rs, so designated by their PAFSC, were in fact performing duties in an entirely different career field. Each of these members was considered to be an AFSC mis-match.

For 2T2 respondents, examples include paralegal (AFSC 5J0X1), dental assistant (AFSC 5Y0X1), and prisoner (AFSC 9J000). However, exceptions included members with a Special Duty Identifiers (AFSCs beginning with an 8); these members were retained in the sample. For 21Rs, examples include intelligence (AFSC 14NX), weather (AFSC 15WX), and manpower (AFSC 38MX). However, exceptions also included members with a Special Duty Identifiers (AFSCs beginning with an 8), as well as executive officers above wing level (AFSC 97E0).

A total of 310 such respondents were deleted for reasons described above. This total included 69 (22.3%) AD 2T2s; 30 (9.7%) AD 21Rs; 70 (22.6%) ANG 2T2s; 0 (0.0%) ANG 21Rs; 114 (36.8%) AFR 2T2s; and 27 (8.7%) AFR 21Rs. In addition, this researcher and a member of the research committee, both of whom are 21Rs, were deleted from the sample to reduce potential bias. These actions reduced the sample population to 16,012 members.

Given the nature of the data listing provided by AFPC, the researcher imposed parameters, as identified above, to ensure the sample used for analysis was suitable to address the research question. There were two initial email waves and one reminder email wave.

First Email Wave.

Data collection commenced on Friday, 6 January 2006 when a series of email messages were sent directly to the participants as described in the survey instrument section above. An example of one of the initial emails can be found in Appendix E.

These emails sent on the first wave generated 349 returned emails from a number of different email servers. These 349 emails contained information which detailed why the message could not be delivered to the intended recipient. Reasons include inaccurate email address; mailbox was at maximum capacity; and the possibility that spam blocking software was activated either by the server or the recipient's particular email account settings. The total number of members who did not receive the original 6 January 2006 email with the survey link was 3,938 which consisted of 659 (16.7%) AD 2T2s; 261 (6.6%) AD 21Rs; 748 (19.0%) ANG 2T2s; 68 (1.7%) ANG 21Rs; 2,040 (51.8%) AFR 2T2s; and 162 (4.1%) AFR 21Rs.

The next eighteen days were spent trying to verify each of the 3,938 email addresses by using the Air Force Global Address Listing (GAL) available in Microsoft Outlook. This resulted in the verification of 1,536 members which consisted of 473 (30.8%) AD 2T2s; 191 (12.4%) AD 21Rs; 0 (0.0%) ANG 2T2s; 0 (0.0%) ANG 21Rs; 765 (49.8%) AFR 2T2s; and 107 (7.0%) AFR 21Rs. The remaining 2,402 members, which consisted of 186 (7.7%) AD 2T2s; 70 (2.9%) AD 21Rs; 748 (31.1%) ANG 2T2s; 68 (2.8%) ANG 21Rs; 1,275 (53.1%) AFR 2T2s; and 55 (2.3) AFR 21Rs were deleted from the sample as their email address could not be verified.

Second Email Wave.

On 24 January 2006, a second email was sent to the 1,536 respondents whose email addresses were verified as described above. Despite efforts to verify members' email addresses, 64 emails again contained information which detailed why the message could not be delivered to the intended recipient. Reasons were the same as those

described above. The total number of recipients who did not receive this second email attempt with the survey link was 151, which consisted of 25 (16.6%) AD 2T2s; 15 (9.9%) AD 21Rs; 106 (70.2%) AFR 2T2s; and 5 (3.3%) AFR 21Rs. Note that no ANG 2T2s and 21Rs were returned as undeliverable since their email address could not be verified (ANG members not on AF GAL). As such, no second attempt was made to contact them. Between the first and second email waves, a total of 13,459 potential respondents received an email inviting them to participate in the survey, which represents 84.1% of the 16,012 names on the reduced list as previously described.

After both initial email waves, a number of members replied and stated that they did not want to be included in the study and requested to be removed from the researcher's list of names. These 15 members consisted of eight (53.3%) AD 2T2s; zero (0.0%) AD 21Rs; zero (0.0%) ANG 2T2s; two (13.3%) ANG 21Rs; three (20.0%) AFR 2T2s; and two (13.3%) AFR 21Rs, all of whom were deleted, bringing the adjusted sample down from 13,459 to 13,444 members, or 84.0% of the names on the reduced list as previously described.

Reminder Email Wave.

On 6 February 2006, a reminder email wave was sent to the 13,444 members on the reduced list. The reminder email thanked those who already participated and encouraged those who had not yet taken the survey to do so. The reminder email can also be found in Appendix E. After the reminder email wave, a number of members replied and stated they were no longer either a 2T2 or a 21R, but were assigned to some other career field and had been for varying periods of time. Each of these members was also

considered to be an AFSC mis-match, and was therefore deleted from the sample. These eight members consisted of one (12.5%) AD 2T2; five (41.7%) AD 21Rs; zero (0.0%) ANG 2T2s; zero (0.0%) ANG 21Rs; one (12.5%) AFR 2T2; and one (12.5%) AFR 21R, all of whom were deleted, bringing the final adjusted sample down from 13,444 to 13,436.

Data collection was terminated on Wednesday, 15 February 2006; thus the survey link was active for a total of 41 days. The rate at which respondents completed the survey, relative to the date the survey link first became active, can be seen in Figure 17. Of the 16,324 members on the original listing, 13,436 were assumed to have received and read at least either the first or second initial email, or the reminder email. Table 1 provides a summary of the previous discussion.

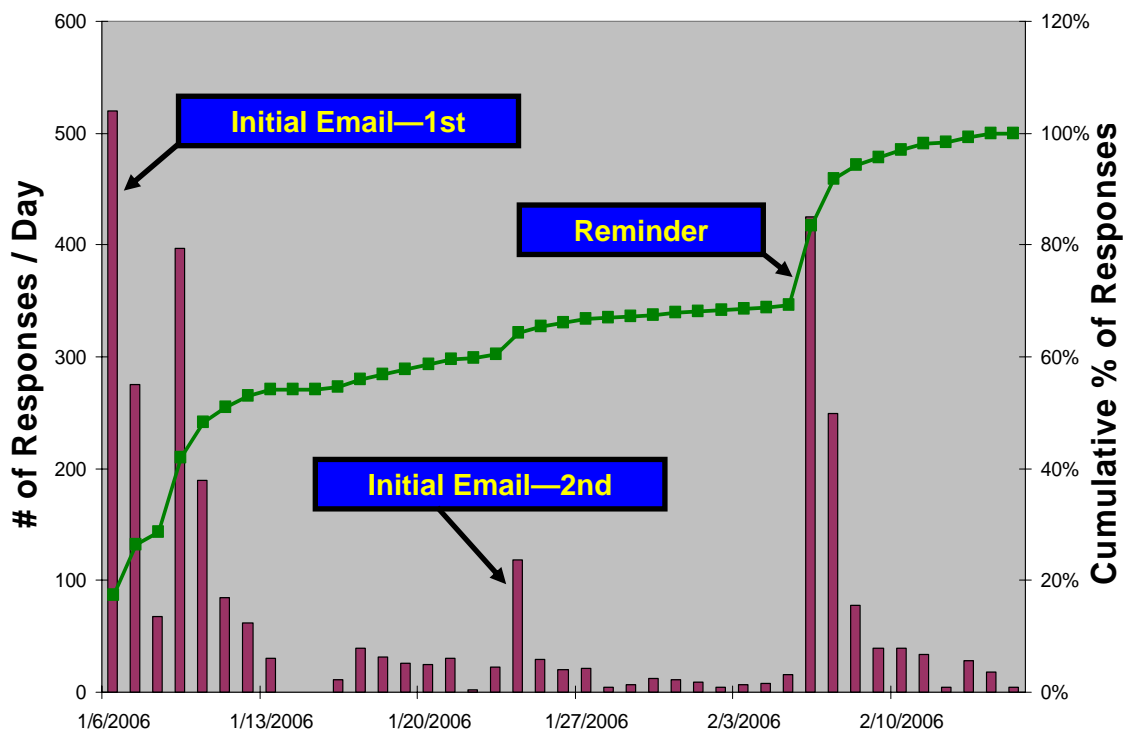


Figure 17. Survey Response Timeline

Measures

Validity of the Survey Instrument.

The validity of a survey's measures is the extent to which the survey instrument measures what it is intended to measure (Leedy & Ormrod, 2000:99). This survey consisted of a total of 51 items (nine demographic questions, 41 survey items, and one open-ended item). Four of the 41 survey items were adapted from the four-item Organizational Commitment scale validated by Porter and Smith, as cited by Fecteau, et al., 1995. The Organizational Commitment construct was defined as the relative strength of an individual's identification with and involvement in a particular organization (Porter and Smith, as cited by Fecteau, et al., 1995). Furthermore, the original organizational

Table 1. Summary of Surveyed Population

Line Description	AD		ANG		AFR		Totals
	2T2	21R	2T2	21R	2T2	21R	
1 Original Contact Info Available	4851	2098	1865	575	6274	661	16324
2 Miscellaneous (Deleted)	0	2	0	0	0	0	2
3 AFSC Mis-Match (Deleted)	69	30	70	0	114	27	310
4 1st Initial Email Wave^a	4782	2066	1795	575	6160	634	16012
5 Undeliverable -- 1st Email Wave	659	261	748	68	2040	162	3938
6 Unable to Verify Address on GAL (Deleted)	186	70	748	68	1275	55	2402
7 2nd Initial Email Wave (Verified Address)^b	473	191	0	0	765	107	1536
8 Undeliverable -- 2nd Email Wave (Deleted)	25	15	N/A	N/A	106	5	151
9 Total Deliverable Initial Emails^c	4571	1981	1047	507	4779	574	13459
10 Requested To Be Removed From Mailing List	8	0	0	2	3	2	15
11 Reminder Email Wave^d	4563	1981	1047	505	4776	572	13444
12 Self-Reported AFSC Mis-Match (Deleted)	1	5	0	0	1	1	8
13 Total Population Surveyed^e	4562	1976	1047	505	4775	571	13436

^a. Line 4 = Line 1 minus Line 2 minus Line 3; ^b. Line 7 = Line 5 minus Line 6; ^c. Line 9 = Line 4 minus Line 6 minus Line 8

^d. Line 11 = Line 9 minus Line 10; ^e. Line 13 = Line 11 minus Line 12

commitment scale was not used in its entirety as the focus of this study was not on organizational commitment; likewise, adding additional items would only make the survey longer, which could potentially frustrate respondents, some of whom may skew their responses. The remaining 37 survey items were developed specifically for this research effort.

While the possibility existed that the validity of this survey instrument would be suspect, designing items to measure constructs specifically pertaining to the focus of the study was deemed more beneficial than adopting previously validated scales simply to ensure validity of the survey instrument. It is important to note that these questions were not adapted from any previously validated measures, other than as previously noted (Organizational Commitment). In addition to this researcher's first-hand knowledge of the pure pallet program, members of the Cargo Management Branch within HQ AMC's Air Transportation Division (AMC/A43) reviewed the questionnaire to evaluate the appropriateness of the elements and measurement scale used.

Reliability of the Survey Instrument.

Reliability of a survey's measures is the extent to which those measures yield consistent results (Leedy & Ormrod, 2000). Accordingly, the purpose of evaluating the reliability of the survey instrument was to assess whether the measurements obtained with the questionnaire were free from random error. In order to reduce potential random errors associated with reliability, this research relied on the internal consistency reliability estimate known as Cronbach's alpha, which measures the extent to which all the items within a single construct yield similar results (Leedy & Ormrod, 2000). A Cronbach's

alpha value of greater than .70 is considered the acceptable standard (Nunnally and Bernstein, 1994).

Data Analysis Techniques

Factor Analysis.

Recall that the items listed above were not previously validated (except for the Organizational Commitment scale). The use of factor analysis to identify the factors underlying a larger number of variables can provide valuable insight into the relationships occurring within a field of study; therefore it was necessary for the data to undergo factor analysis procedures. Factor analysis is simply a data reduction technique. “It is a family of procedures for removing the redundancy from a set of correlated variables and representing the variables with a smaller set of ‘derived’ variables, or *factors*” (Kachigan, 1992:237). There are two branches of factor analysis, exploratory and confirmatory (Kim and Mueller, 1978).

Exploratory analysis is used for early, descriptive research, when a researcher has data but no suspicions of the factors that may be contained in the data. Confirmatory factor analysis should be used when the researcher has some basis for believing the data contains certain factors and wishes to confirm the belief (Kim and Mueller, 1978). Given the fact that roughly 92% of the survey items were specifically developed for this research effort, it is more than appropriate to employ exploratory factor analysis. This research is indeed early in the sense that no research of this kind has been previously conducted, at least not pertaining to pure pallets.

What further differentiates the two branches is the decision whether to analyze all of the individual differences in the data or just a selected portion. These differences in the data represent its variability. There are three types of variability; shared (common), unique (uncommon), and random (due to measurement error, or unreliability). While confirmatory factor analysis extracts factors from differences in shared variability, exploratory factor analysis extracts factors from all of the individual differences in the data. A more important distinction is that exploratory factor analysis procedures do not test hypotheses about the nature of the factors that might be detected, whereas confirmatory factor analysis does (Spicer, 2005). During this research effort, no hypotheses were made regarding the number of factors that might be detected. As such, the appropriate method used to extract factors from the data is principal components analysis (PCA).

After collecting the data, factor analysis begins by computing a correlation matrix. This matrix is nothing more than a table of the correlation coefficients that exist for each pair of variables (Kachigan, 1991:242). The partial correlations among all pairs of items (the anti-image correlations) are then examined. These values are used in computing the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy by comparing them with that item's simple correlations. This comparison is expressed as an index with values between zero and one. Kaiser declares, as quoted by Spicer, that measures in the 0.90s as marvelous, in the 0.80s as meritorious, in the 0.70s as middling, in the 0.60s as mediocre, in the 0.50s as miserable, and below 0.50 as unacceptable (Spicer, 2005:186). The closer this ratio is to one, it means that all of the partial correlation coefficients are

small, compared to the ordinary correlation coefficients. This is desired as it is an indication that the variables are linearly related.

A series of operations are then performed on the correlation matrix using matrix algebra to produce a factor matrix consisting of factor loadings. These factor loadings range in value from -1.0 to +1.0 and “represent the degree to which each of the variables correlates with each of the factors” (Kachigan, 1991:243).

The next step is to judge how well the n-factor model describes the original items by computing the proportion of each item’s variance that is explained by the n-common factors. This proportion of variance is called the communality of the variable and can range from 0 to 1, with 0 indicating that the common factors do not explain any of the variance, and 1 indicating that all of the variance is explained by the common factors. In a successful factor analysis, the communalities for items should be large. Items with small enough values should be considered for removal from the analysis, since they are not linearly related to the other items (Norušis, 2005b:410-411).

Once the number of factors to be retained is decided, the next step is to rotate the axes to better distribute the variance explained among the factors retained. There are many different methods of rotation. For this research effort, only two were considered. The first, orthogonal rotation, assumes that the factors are independent. The second method, varimax rotation, does not assume that the factors are independent. This method is useful when there is reason to believe that the factors may be somewhat correlated (Norušis, 2005b).

Once the factors have been identified and rotated so that a good understanding is obtained of how the variables load on each factor, the researcher then assigns a label to

each factor that best describes it. This step is fairly subjective and depends heavily on the expertise and experience of the researcher.

Analysis of Variance (ANOVA).

“One-way analysis of variance (ANOVA) is used to analyze the relationship between one categorical independent variable and one interval-level dependent variable” (Spicer, 2005:155). Although the analysis revolves around variances, it is easier to think of ANOVA as a technique for analyzing sets of differences between mean scores on the dependent variable. “Differences between means, and therefore group differences, always remain the focal point” (Spicer, 2005:155).

When performing analyses of variance, three main assumptions must be made which include independence, normality, and equal variance (Norušis, 2005a:307). The independence assumption means that there is no relationship in the different observations in the different groups and between observations in the same group. The normality assumption can be checked by making histograms or normal probability plots for each of the groups. However, in practice, the analysis of variance is not heavily dependent on the normality assumption. The equality-of-variance assumption can be checked by computing the Levene test for equality of variance. However, in practice, if the number of cases in each of the groups is similar, the equality-of-variance assumption is not too important (Norušis, 2005a:308).

“In analysis of variance the observed variability in the sample is divided into two parts: variability of observations within a group about the group mean, and variability between the group means” (Norušis, 2005a:309). The conclusion that can be drawn from

this procedure, however is only whether a statistically significant difference exists between two or more groups. To investigate what groups differ and by how much, post-hoc tests, such as the Tukey-HSD (equal variances assumed) and Games-Howell (equal variances not assumed) multiple comparison tests were used. These procedures identify what pairs of groups are different, and for this research effort, the .05 level of significance was used for all statistical tests. This means that there is a one in twenty chance of rejecting the null hypothesis when in fact it is true.

Assumptions and Limitations

Regarding the survey, one major assumption is that all undeliverable messages were, in fact, undeliverable. A few of the returned messages containing anywhere from one to over 90 undeliverable names indicated that the message could not be delivered, but attempts would be made for the next five days. Since there was no way to determine if, in fact, the messages were successfully delivered, this researcher had to assume that the message was not deliverable. It is theoretically possible that some number of members on the original list, while initially identified as undeliverable and whose email address could not later be verified, may actually have received the message despite being deleted from the list. Recall that ANG personnel were not visible to this researcher on the AF global address listing in Microsoft Outlook; therefore, ANG personnel would be the most likely to fall in this category.

Likewise, an assumption was made that lack of notice that a message was undeliverable meant that it must have been delivered. A subsequent assumption is that if a message was delivered, then it must have been read. There certainly may exist some

number of personnel who may have been deployed and unable to check their home station email account. Of course this is only a concern if the member's home station email address matched the one on file at AFPC.

Nonresponse error was tested by comparing early responders with the late responders since non-responders are likely to resemble more the late responders (Armstrong & Overton, 1977; Lindner, Murphy, and Briers, 2001). An Analysis of Variance (ANOVA) was performed to determine if there was a difference in the level of pure pallet program experience among early respondents (after the first two initial email stimuli) and late respondents (after the reminder email stimulus). The level of pure pallet program experience was computed by adding the total number of years and months respondents reported having at each of the functions listed in Item 9.

Despite the use of highly appropriate tools, there are limitations to this methodology. Specifically, this subject deals essentially with meaning and interpretation. Regardless of the rigor in the instrument and its administration, scales and factors are open to the interpretation of each reader (Isaac & Michael, 1971:103; Kerlinger, 1973:571). Because it is impossible to quantify this inherent limitation, the assumption that all respondents interpreted all questions in a similar manner, while a lofty one, should not necessarily be universally accepted.

Summary

The goals of this chapter were to ensure the reader has a clear understanding of the rationale for each methodology decision and to enable the reader to retrace this researcher's path. This chapter reviewed the research and investigative questions;

provided a detailed discussion of the survey; discussed the data collection procedures, reliability, and validity; described the data analysis techniques employed; and addressed the assumptions and limitations of the methodology employed herein.

IV. Results and Analysis

Introduction

This chapter begins by presenting the demographic data of survey respondents. Next, the factor analysis procedures used to analyze the survey responses are discussed. Once the factors have been identified, what follows is a discussion of the Independent Samples T-test and Analysis of Variance (ANOVA) procedures used to determine whether differences in perceptions exist among different respondent subgroups. Finally, this chapter concludes by discussing the outcome of the open ended question in Part II of the survey. While this chapter focuses on the specific findings and analysis results, Chapter V focuses on the implications of these findings.

Demographic Data

This section of the chapter discusses the outcome of a series of steps taken to verify and cleanse the survey data set. Explicit details of these steps can be found in Appendix F. For the summary tables below, the 'Rank' column includes prior-enlisted service officers (O-1E, O-2E, O-3E), however, it was impossible to differentiate which members of the surveyed population are categorized as such. Therefore, the response rates for O-1s, O-2s, O-3s were calculated using both O-1 and O-1E, O-2 and O-2E, and O-3 and O-3E information respectively.

Active Duty Demographics

A total of 4,562 questionnaires were sent to Active Duty (AD) air transportation specialists (2T2s), of whom 1,139 (24.97%) responded. An additional 13 AD enlisted members completed the survey, 11 of whom did not represent the 2T2 career field and were assigned to the 'Other' category. The remaining two additional members did not indicate an AFSC and were subsequently assigned to the 'Unknown' category.

A total of 1,976 questionnaires were sent to AD logistics readiness officers (21Rs), of whom 794 (40.18%) responded. An additional 11 AD officers completed the survey, nine of whom did not represent the 21R career field and were assigned to the 'Other' category. The remaining two additional members did not indicate an AFSC and were subsequently assigned to the 'Unknown' category.

The number of questionnaires sent to AD members totaled 6,538, 1,933 of whom completed the survey, which represents an overall AD response rate of 29.57%. Tables 2 and 3 summarize the AD response rates for each rank within each Air Force Specialty Code (AFSC).

Air National Guard Demographics

A total of 1,047 questionnaires were sent to Air National Guard (ANG) 2T2s, of whom 142 (13.56%) responded. An additional 13 ANG enlisted members completed the survey, 11 of whom did not represent the 2T2 career field and were assigned to the 'Other' category. The remaining two additional members did not indicate an AFSC and were subsequently assigned to the 'Unknown' category.

Table 2. Active Duty (AD) 2T2 Response Rate

	Rank	# in	Surveys	Response	%	
		Surveyed Population	Completed	Experienced	Rate	Experienced
2T2	E-1	73	4	1	5.48%	25.00%
	E-2	149	11	4	7.38%	36.36%
	E-3	1146	121	38	10.56%	31.40%
	E-4	861	141	53	16.38%	37.59%
	E-5	1165	329	107	28.24%	32.52%
	E-6	702	296	92	42.17%	31.08%
	E-7	397	186	56	46.85%	30.11%
	E-8	64	33	19	51.56%	57.58%
	E-9	5	5	2	100.00%	40.00%
	Other	0	11	1	N/A	N/A
	Unknown	0	2	0	N/A	N/A
Total 2T2		4562	1139	373	24.97%	32.75%

Table 3. Active Duty (AD) 21R Response Rate

	Rank	# in	Surveys	Response	%	
		Surveyed Population	Completed		Experienced	Rate
21R	O-1	208	55	6	34.62%	16.36%
	O-1E		17	3		
	O-2	408	72	17	33.82%	47.22%
	O-2E		66	17		
	O-3	687	182	41	42.65%	34.62%
	O-3E		111	22		
	O-4	367	155	30	42.23%	19.35%
	O-5	248	103	13	41.53%	12.62%
	O-6	58	22	5	37.93%	22.73%
	Other	0	9	1	N/A	N/A
	Unknown	0	2	0	N/A	N/A
Total 21R		1976	794	155	40.18%	19.52%

A total of 505 questionnaires were sent to ANG 21Rs, of whom 119 (23.56%) responded. An additional 11 ANG officers completed the survey, nine of whom did not represent the 21R career field and were assigned to the ‘Other’ category. The remaining two additional members did not indicate an AFSC and were subsequently assigned to the ‘Unknown’ category.

The number of questionnaires sent to ANG members totaled 1,552, 261 of whom completed the survey, which represents an overall ANG response rate of 16.82%. Tables 4 and 5 summarize the ANG response rates for each rank within each AFSC.

Table 4. Air National Guard (ANG) 2T2 Response Rate

Rank	# in Surveyed Population	Surveys Completed	Experienced	Response Rate	% Experienced
E-1	0	0	0	N/A	N/A
E-2	0	0	0	N/A	N/A
E-3	34	1	0	2.94%	0.00%
E-4	325	16	3	4.92%	18.75%
E-5	322	41	11	12.73%	26.83%
2T2 E-6	204	34	10	16.67%	29.41%
E-7	120	21	8	17.50%	38.10%
E-8	38	13	5	34.21%	38.46%
E-9	4	3	2	75.00%	66.67%
Other	0	11	2	N/A	N/A
Unknown	0	2	1	N/A	N/A
Total 2T2	1047	142	42	13.56%	29.58%

Air Force Reserve Demographics

A total of 4775 questionnaires were sent to Air Force Reserve (AFR) 2T2s, of whom 627 (13.13%) responded. An additional 17 AFR enlisted members completed the survey, six of whom did not represent the 2T2 career field and were assigned to the ‘Other’ category.

The remaining 11 additional members did not indicate an AFSC and were subsequently assigned to the 'Unknown' category.

Table 5. Air National Guard (ANG) 21R Response Rate

<u>Rank</u>	<u># in Surveyed Population</u>	<u>Surveys Completed</u>	<u>Experienced</u>	<u>Response Rate</u>	<u>% Experienced</u>
O-1	48	8	1	33.33%	25.00%
O-1E		8	1		
O-2	60	4	0	23.33%	25.00%
O-2E		10	1		
O-3	159	18	1	19.50%	16.67%
21R O-3E		13	2		
O-4	130	25	2	19.23%	8.00%
O-5	108	21	3	19.44%	14.29%
O-6	0	1	0	N/A	0.00%
Other	0	9	0	N/A	N/A
Unknown	0	2	0	N/A	N/A
Total 21R	505	119	11	23.56%	9.24%

A total of 571 questionnaires were sent to AFR 21Rs, of whom 169 (29.60%) responded. An additional 17 AFR officers completed the survey, 14 of whom did not represent the 21R career field and were assigned to the 'Other' category. The remaining three additional members did not indicate an AFSC and were subsequently assigned to the 'Unknown' category.

The number of questionnaires sent to AFR members totaled 5346, 796 of whom completed the survey, which represents an overall AFR response rate of 14.89%. Tables 6 and 7 summarize the AFR response rates for each rank within each AFSC.

Table 6. Air Force Reserve (AFR) 2T2 Response Rate

<u>Rank</u>	<u># in Surveyed Population</u>	<u>Surveys Completed</u>	<u>Experienced</u>	<u>Response Rate</u>	<u>% Experienced</u>
E-1	3	1	0	33.33%	0.00%
E-2	7	0	0	0.00%	N/A
E-3	170	8	1	4.71%	12.50%
E-4	975	65	14	6.67%	21.54%
E-5	953	107	23	11.23%	21.50%
2T2 E-6	1590	193	63	12.14%	32.64%
E-7	765	146	41	19.08%	28.08%
E-8	300	87	23	29.00%	26.44%
E-9	12	3	0	25.00%	0.00%
Other	0	6	1	N/A	N/A
Unknown	0	11	2	N/A	N/A
Total 2T2	4775	627	168	13.13%	26.79%

Table 7. Air Force Reserve (AFR) 21R Response Rate

<u>Rank</u>	<u># in Surveyed Population</u>	<u>Surveys Completed</u>	<u>Experienced</u>	<u>Response Rate</u>	<u>% Experienced</u>
O-1	30	7	1	40.00%	28.57%
O-1E		5	1		
O-2	38	6	0	23.68%	0.00%
O-2E		3	0		
O-3	122	17	1	28.69%	23.53%
21R O-3E		18	3		
O-4	186	51	3	27.42%	5.88%
O-5	168	31	6	18.45%	19.35%
O-6	27	14	2	51.85%	14.29%
Other	0	14	0	N/A	N/A
Unknown	0	3	0	N/A	N/A
Total 21R	571	169	17	29.60%	10.06%

Overall Demographics

The sample is representative of the larger population. Of the 13,436 deliverable emails containing the web-based survey link, 3,005 surveys were recorded in the WebSIRS database. Fifteen of the 3005 cases were considered invalid and deleted from the database, which resulted in 2,990 cases representing an overall 22.25% response rate. Furthermore, the 82 cases assigned to the 'Other' category represent only 0.61% of the 13,436 members assumed to have received and read the deliverable emails, and 2.74% of the completed surveys. Tables 8 and 9 summarize the overall response rate by Component and AFSC respectively.

Table 8. Overall Component Response Rate

	<u>Surveys Delivered</u>	<u>Surveys Completed</u>	<u>Response Rate</u>
Active	6538	1933	29.57%
Guard	1552	261	16.82%
Reserve	5346	796	14.89%
Total Overall	13436	2990	22.25%

Table 9. Overall AFSC Response Rate

	<u>Surveys Delivered</u>	<u>Surveys Completed</u>	<u>Response Rate</u>
2T2	10384	1865	17.96%
Enlisted Other	0	28	N/A
Enlisted Unknown	0	15	N/A
21R	3052	1043	34.17%
Officer Other	0	32	N/A
Officer Unknown	0	7	N/A
Total Overall	13436	2990	22.25%

In testing for possible nonresponse error, the results indicated that the level of pure pallet program experience among early responders ($n = 38$ and 39) did not significantly differ from late responders ($n = 32$) ($F = .69, p < .50$). However, there is a five percent chance that the results of this study do not reflect the results otherwise acquired had all members of the interested population participated in the survey.

Usable Cases

Of the 2,990 valid surveys completed, 766 cases had the value ‘1’ for Item 8 which asked ‘*Have you had exposure to, or worked with, the pure pallet program to include, building, load planning, loading, or overseeing pure pallet program activities?*’ Respondents answering ‘Yes’ to this question received the value ‘1’ and respondents answering ‘No’ to this question received the value ‘2’. As mentioned earlier in Chapter III, Methodology, this question served as a discriminator by identifying those personnel with knowledge and/or experience of the pure pallet program—the true population of interest. With respect to investigative question three, of the entire population of 2T2s and 21Rs, 25.62% (766 out of 2,990) had experience with the pure pallet program.

Of the 766 cases with the value ‘1’ for Item 8, 62 had the value ‘999’ for at least one of the 39 survey items. These cases were deleted using a process known as listwise deletion, which is considered more conservative despite the slight reduction in statistical power associated with a reduction in the number of cases.

Upon closer examination of the remaining 704 cases, seven were found to have been assigned the value ‘Other’ or ‘Unknown’ for the ‘AFSC’ field. The reader is directed to Appendix F (specifically Step 7) for a detailed review of the procedures taken

to verify and cleanse the survey data set, which include the rationale for assigning values to a newly created 'AFSC' field (known as the 'SPECIALTY_CODE' field in the original survey database). These seven cases were deleted resulting in an adjusted data set of 697 usable cases, all of which were used during the statistical analyses as described throughout the remainder of this chapter. Again, the reader is directed to Appendix F where a number of various frequency and demographic summary tables are provided.

Analyzing Survey Responses

Due presumably to some sort of recording malfunction with the WebSIRS database, 100% of the cases had the value '999' for Items 9 and 10. Therefore, both items were deleted for all cases, leaving a total of 39 7-point scale questionnaire items.

The survey responses were analyzed using the factor analysis procedures detailed in Chapter III, Methodology. The first step of creating an $R \times V$ matrix was conducted during the data collection stage. A correlation matrix was then computed. Of 741 possible unique item combinations of correlation coefficients, 602 (81.24%) were found to be significantly correlated at the .05 level of significance. The remaining 139 (18.76%) were not significantly correlated at the .05 level of significance. Due to the very large size of the correlation matrix, only the *insignificant* correlation coefficients and respective p-values are provided in Table 32 of Appendix G.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was computed, resulting in a value of .92. This value was considered "marvelous" and a very good indicator there was a strong multivariate structure available for analysis (Spicer, 2005:186). Principal Components Analysis (PCA) was used to extract factors with

eigenvalues over one, resulting in seven unique underlying factors in the data. The total variance explained was 61% with each of the seven factors explaining 27.31%, 13.37%, 5.74%, 4.72%, 3.89%, 3.20%, and 2.76% of the variance respectively. This information can be found in Table 33 in Appendix G.

The communalities of the items were then examined to determine if any items were not linearly related to the other items. All values were relatively high to very high, indicating all items were linearly related. As such, all 39 items (recall that Items 9 and 10 did not properly record into the survey database and were deleted) were considered during the exploratory factor analysis procedure. The communalities can be seen in Table 34 of Appendix G.

Mathematically speaking, all items will load at some level on each factor. In order to differentiate which factor(s) upon which an item significantly loads, a minimum factor loading value must be specified *a priori*. Stevens states, as quoted by Spicer, that “a practice has developed of using .30 as a minimum loading mainly on the grounds that such a variable would be accounting for nearly 10% ($.3^2$) of the variance in a factor. But this has been criticized as ignoring the effect of sample size” (Spicer, 2005:189). As quoted by Spicer, Stevens “has reviewed these arguments and provided a useful table that allows the analyst to determine a minimum value reflecting both stringent statistical significance ($p < .01$) and size of contribution. On this basis, a loading would need to be at least .42 to be worthy of interpretation” (Spicer, 2005:189).

This research utilized a more conservative approach by performing factor analysis procedures suppressing the coefficients with absolute values less than .42, meaning that the factor loadings for any given item below this value would not be reflected in the

factor matrix. If nothing else, specifying a conservative minimum factor loading level makes the task of interpreting the factor matrix much easier.

The reader should note that the following discussion of the extraction and rotation procedures does not include specific items among each of the factors. Instead, a general discussion regarding this researcher's decisions is provided, while all supporting SPSS output is provided in Appendix G. The discussion regarding the final factors used for statistical analysis is provided when appropriate.

The initial unrotated extraction of the seven factors resulted in five items cross-loading on two factors and one item cross-loading on three factors. The resulting component matrix indicated that Factors 1 through 7 consisted of 28, ten, three, one, two, one, and one item respectively. The unrotated component matrix can be found Table 35 in Appendix G,

The varimax (orthogonal) rotation method was employed in order to make the data more interpretable. This orthogonal rotation only allows the axes on which the items are loaded to be rotated at right angles. The varimax-rotated matrix was much easier to interpret than the simple component matrix. All 39 items, again, loaded against at least one factor and this time five items cross-loaded on two factors, while no items cross-loaded on more than two factors. In terms of the number of items, the factor loadings were distributed more evenly. Factors 1 through 7 consisted of 16, six, five, seven, four, five, and one factor loading respectively (totaling 44 factor loadings, five of which were cross-loaded as specified above). The varimax-rotated component matrix can be found at Table 36 in Appendix G.

To be sure the varimax-rotated matrix reflected the best fitting model, the matrix was instead rotated using the direct oblimin (oblique) rotation method. This oblique rotation relaxes the requirement that the factors must be uncorrelated and allows the axes on which the items are loaded to be rotated at any angle. The direct oblimin-rotated matrix was more difficult to interpret than the matrix using the varimax rotation method. While, again, all 39 items loaded against at least one factor, there was a considerable increase in the number of items that cross-loaded; 18 cross-loaded on two factors and five items cross-loaded on three factors. Factors 1 through 7 consisted of 20, nine, seven, 13, 12, one, and six items respectively. This rotated structure matrix can be found at Table 37 in Appendix G.

Given the results of the direct oblimin rotation, it was determined that the factors extracted from the data using the varimax rotation method were more interpretable. From this point forward, all factor references will be made to the varimax-rotated (orthogonal) component matrix (again, found in Table 36 of Appendix G) with coefficients suppressed at absolute values less than .42.

It is now appropriate to discuss the seven extracted factors. All factor summary tables below include each item's number in the survey, verbiage, mean (M), and standard deviation (SD), as well as the number of cases (N) used to compute the Cronbach's alpha (α). Recall from Chapter III, Methodology that the Cronbach's alpha is a measure of a factor's internal consistency, which measures the extent to which all the items within a single construct yield similar results. This is also referred to as the scale's reliability. Also, item numbers followed by 'R' indicate the item was reverse coded prior to any calculations.

Factor 1

Sixteen items loaded against Factor 1. Item 7 had a factor loading of .494 but also cross-loaded on Factor 2 with a value of .496. Since this item loaded higher on Factor 2, it was deleted from Factor 1 resulting in a 15-item factor. Deleting any more items did not improve the factor's internal reliability. This final 15-item factor was labeled 'Overall View' ($n = 697$, $M = 4.97$, $SD = .93$, $\alpha = .92$). The items in this factor appear to relate to the pure pallet program in a very general sense. This contrasts with the other factors described below, which all appear to relate to specific aspects of the pure pallet program. Lower response values for this factor indicate that perceptions of the pure pallet program as a whole are poor, while higher response values indicate that perceptions of the pure pallet program as a whole are good. Table 10 provides descriptive item statistics for Factor 1.

Factor 2

Six items loaded against Factor 2. Item 27 had a factor loading of .454 but also cross-loaded on Factor 1 with a value of .476. Since this item loaded higher on Factor 1, it was deleted from Factor 2 resulting in a 5-item factor. Deleting Item 29 increased the factor's internal reliability from .82 to .83, however the item was retained as it was determined that the marginal increase in reliability was not worth losing the relevance the item had on the factor. This final 5-item factor was labeled 'Efficiency' ($n = 697$, $M = 4.43$, $SD = .96$, $\alpha = .82$). The items in this factor appear to specifically relate to how efficient the pure pallet program is. Lower response values for this factor indicate that perceptions of the pure pallet program's efficiency are poor, while higher response values

indicate that perceptions of the pure pallet program's efficiency are good. Table 11 provides descriptive item statistics for Factor 2.

Table 10. Factor 1 - 'Overall View' Item Statistics

Item	'Overall View' Items, $\alpha = .92$	Mean	Std. Deviation	N
1	I am familiar with the goals of the pure pallet program.	5.43	1.56	697
2	The pure pallet program is a good concept.	5.52	1.23	697
3	Less cargo is lost in the distribution pipeline under the pure pallet program.	5.22	1.30	697
4	My supervisor supports the pure pallet program.	5.19	1.33	697
6	Standards under the pure pallet program are clearly defined.	4.63	1.38	697
8	Standards under the pure pallet program are attainable.	5.01	1.20	697
16	My unit has the necessary resources to do the pure pallet program effectively.	4.62	1.51	697
23	My supervisor feels the pure pallet program is important.	4.93	1.27	697
24	Standards under the pure pallet program are reasonable.	4.94	1.18	697
25	The pure pallet program is working as it was intended.	4.73	1.20	697
27	Moving pallets within the CENTCOM AOR is easier due to the pure pallet program.	4.81	1.38	697
36	I think the pure pallet program is beneficial to the warfighter.	5.35	1.31	697
38	The pure pallet program works as it was initially described to me.	4.67	1.23	697
40	I am very familiar with the pure pallet program.	4.55	1.66	697
41R	I think the pure pallet program should be abandoned.	4.93	1.51	697

Factor 3

Five items loaded against Factor 3. Item 23 had a factor loading of .435 but also cross-loaded on Factor 1 with a value of .569. Since this item loaded higher on Factor 1,

Table 11 Factor 2 - 'Efficiency' Item Statistics

Item	'Efficiency' Items, $\alpha = .82$	Mean	Std. Deviation	N
7	Pallets move through the distribution pipeline faster under the pure pallet program.	4.80	1.39	697
20	My unit is more efficient under the pure pallet program.	4.26	1.19	697
21	Duplicate ordering has decreased under the pure pallet program.	4.32	.98	697
28	My job is easier with the pure pallet program.	4.34	1.40	697
29	The pure pallet program has benefited my unit's operations.	4.45	1.31	697

it was deleted from Factor 3 resulting in a 4-item factor. Deleting any more items did not improve the factor's internal reliability. This final 4-item factor was labeled 'Training and Feedback' ($n = 697$, $M = 3.99$, $SD = 1.25$, $\alpha = .81$). The items in this factor appear to specifically relate to the training and feedback aspects of the pure pallet program. Lower response values for this factor indicate that perceptions of training and feedback for the pure pallet program are poor, while higher response values indicate that perceptions of training and feedback for the pure pallet program are good. Table 12 provides descriptive item statistics for Factor 3.

Table 12. Factor 3 - 'Training and Feedback' Item Statistics

Item	'Training and Feedback' Items, $\alpha = .81$	Mean	Std. Deviation	N
15	I received adequate training for pure pallet program implementation.	4.26	1.61	697
30	My supervisor asks me for feedback regarding the pure pallet program.	3.82	1.52	697
31	I feel that mostly everyone in my unit is adequately familiar with the pure pallet program.	3.95	1.66	697
33	My supervisor provides good feedback to me regarding the pure pallet program.	3.92	1.49	697

Factor 4

Seven items loaded against Factor 4. Item 26 had a factor loading of .427 but also cross-loaded on Factor 6 with a value of .631. Since this item loaded higher on Factor 6, it was deleted from Factor 4. Item 41 had a factor loading of .439 but also cross-loaded on Factor 1 with a value of .631. Since this item loaded higher on Factor 1, it was deleted from Factor 4. Deleting any more items did not improve the factor's internal reliability. This final 5-item factor was labeled 'Resources Required' ($n = 697$, $M = 3.80$, $SD = .96$, $\alpha = .75$). The items in this factor appear to specifically relate to the resources required for the pure pallet program. Lower response values for this factor indicate that perceptions of the resources provided to implement the pure pallet program are poor, while higher response values indicate that perceptions of the resources provided to implement the pure pallet program are good. Table 13 provides descriptive item statistics for Factor 4.

Factor 5

All four items loading against Factor 5 did not cross-load on any other factor. These four items coincidentally represent the four items adapted from the Organizational Commitment scale as described in Chapter III, Methodology. Deleting Item 11 increased the factor's internal reliability from .86 to .90, however the item was retained as it was determined that the overall factor variance would *drastically* increase. Also, the marginal increase in reliability was not worth compromising the relevance of these four items in their entirety. This final 4-item factor was appropriately labeled 'Organizational Commitment' ($n = 697$, $M = 5.30$, $SD = 1.33$, $\alpha = .86$). The items in this factor relate to each respondent's level of organizational commitment. Lower response values for this

Table 13. Factor 4 - 'Resources Required' Item Statistics

Item	'Resources Required' Items, $\alpha = .75$	Mean	Std. Deviation	N
17R	More pallets, nets, and/or tie-down equipment are required under the pure pallet program.	3.37	1.548	697
22R	The pure pallet program increased manpower requirements.	3.94	1.268	697
34R	More equipment is needed under the pure pallet program.	3.80	1.325	697
35R	The pure pallet program has made my job harder.	4.16	1.382	697
37R	The pure pallet program is more costly to implement.	3.74	1.237	697

factor indicate that respondents have low organizational commitment, while higher response values indicate that respondents have high organizational commitment. Table 14 provides descriptive item statistics for Factor 5.

Table 14. Factor 5 - 'Organizational Commitment' Item Statistics

Item	'Organizational Commitment' Items, $\alpha = .86$	Mean	Std. Deviation	N
11	I am willing to put in a great deal of effort beyond that normally expected in order to help make my unit be successful.	5.98	1.196	697
12	I "talk up" my unit to my friends as a great organization to work for.	5.27	1.651	697
13	I find that my values and my unit's values are very similar.	5.19	1.566	697
14	For me, my unit is the best of all possible organizations to work for.	4.76	1.820	697

Factor 6

All five items loading against Factor 6 did not cross-load on any other factor.

Deleting any items did not improve the factor's internal reliability. This final 5-item

factor was labeled ‘Performance’ ($n = 697$, $M = 3.78$, $SD = .14$, $\alpha = .74$). The items in this factor appear to specifically relate to the performance of the pure pallet program. Lower response values for this factor indicate that perceptions of pure pallet program performance are poor, while higher response values indicate that perceptions of pure pallet program performance are great. Table 15 provides descriptive item statistics for Factor 6.

Table 15. Factor 6 - ‘Performance’ Item Statistics

Item	‘Performance’ Items, $\alpha = .74$	Mean	Std. Deviation	N
5R	The pure pallet program has increased overall congestion in the distribution pipeline.	3.80	1.483	697
18R	Port-hold-time (PHT) has increased under the pure pallet program.	3.53	1.416	697
19R	Aircraft utilization has decreased under the pure pallet program.	3.88	1.362	697
26R	Cargo backlog has increased under the pure pallet program.	3.85	1.270	697
32R	Pallet utilization has decreased under the pure pallet program.	3.84	1.394	697

Factor 7

Item 39, ‘*I see ways in which the pure pallet program could be improved*’, with a factor loading score of .693 ($n = 697$, $M = 3.32$ $SD = 1.17$), was the only item that loaded against what SPSS extracted as a seventh factor. As such, the internal reliability could not be calculated since there was only one item. Therefore, there really is no Factor 7 and no further reference will be made to any such factor. The reason for discussing here was to provide a complete discussion of the factors extracted by SPSS.

Factor Analysis Summary

On the average, 2T2s and 21Rs: ‘slightly agree’ that the general concept of the pure pallet program is good (Factor 1: $n = 697$, $M = 4.97$, $SD = .93$); ‘slightly agree’ that efficiency of the pure pallet program is good (Factor 2: $n = 697$, $M = 4.43$, $SD = .96$); ‘slightly agree’ that training and feedback for the pure pallet program is good (Factor 3: $n = 697$, $M = 3.99$, $SD = 1.25$); ‘neither agree nor disagree’ that resources provided for pure pallet program are good (Factor 4: $n = 697$, $M = 3.8$, $SD = .96$); ‘agree’ that their organizational commitment is high (Factor 5: $n = 697$, $M = 5.30$, $SD = 1.33$); and ‘neither agree nor disagree’ that performance of the pure pallet program is good (Factor 6: $n = 697$, $M = 3.78$, $SD = .97$). Table 16 provides summary statistics on all extracted factors.

Table 16. Summary of All Six Extracted Factors

	N	Minimum	Maximum	Mean	Std. Deviation
Factor 1	697	1.40	7.00	4.9681	.92514
Factor 2	697	1.00	7.00	4.4327	.96417
Factor 3	697	1.00	7.00	3.9853	1.24779
Factor 4	697	1.00	7.00	3.8040	.96322
Factor 5	697	1.00	7.00	5.2988	1.32550
Factor 6	697	1.00	7.00	3.7773	.96877
Valid N (listwise)	697				

Analysis of Variance (ANOVA)

A number of statistical tests were performed to determine if perceptions of various aspects of the pure pallet program vary across different subgroups. In addition, self-reported levels of organizational commitment were also compared across these same

subgroups. Except where specifically noted, all tests were performed using the SPSS One-Way ANOVA procedure. This procedure requires a dependent variable to be compared to an independent variable, which must have at least three possible values, or else the procedure is not otherwise possible. When there are not at least three possible values for a given subgroup, an Independent Samples T-test was performed.

Recall from Chapter III, Methodology that the independence assumption is met when observations from the same individual do not appear in each of the subgroups. Such is the case for all of the following statistical analyses since it is impossible for one respondent to be assigned to the active duty component and the reserve component, etc. Again, recall that the normality assumption can be met for sample sizes that are not small. Such is the case for all of the following statistical analyses which follow since $N > 30$ for all comparisons. Once again, recall that the equality-of-variance assumption can be checked by computing the Levene test for equality of variance. However, in practice, if the number of cases in each of the groups is similar, the equality-of-variance assumption is not too important. To be more conservative, the Levene test for equality of variance was conducted for all statistical analyses, whether or not the number of cases in each group was similar. All tests assume independence and normality as discussed previously.

The factor scores for each of the six factors extracted during the factor analysis procedures discussed earlier in this chapter served as dependent variables, while the each of the following three different subgroups served as independent variables for the statistical analyses discussed next.

Subgroup 1: Component

The first test was performed to determine if perceptions among respondents in the active, guard, and reserve components differed with respect to each of the six factor scores—the dependent variables. Since the number of usable cases assigned to each of the components was 491 (70.0%), 44 (6.3%), and 162 (23.2%) respectively, it was necessary to adjust the number of cases used to perform this particular test in order to maintain some degree of validity. While 44 cases was the minimum number of these three subgroups, which offered an appropriate level of statistical power, this researcher decided to be more conservative by combining both guard and reserve cases into one ‘non-active duty’ subgroup. Doing so enabled a larger number of cases (206, or 30.0%) to be compared with the active duty cases (491, 70.0%). This also ensured the normality assumption remained satisfied.

Since only two possible values now existed for this subgroup, namely ‘active’ (AD) and ‘non-active’ (Non-AD), the One-Way ANOVA procedure was no longer an option. An Independent Samples T-test was conducted instead to determine if there were differences in perceptions of each of the six factors between active duty personnel and non-active duty personnel. For each of the factors compared, the only significant differences between the two groups were found in the following factors:

- Factor 2: The perceptions of the ‘Efficiency’ of the pure pallet program between Active Duty and Non-Active Duty 2T2s and 21Rs who reported having experience with the program *differ significantly* from one another. Specifically, Non-Active Duty personnel believe the pure pallet program is more efficient

than do Active Duty personnel (AD $n = 491$, $M = 4.34$, $SD = .98$; Non-AD $n = 206$, $M = 4.64$, $SD = .90$; $t = -3.70$, $df = 695$, $p < .001$).

- Factor 5: The level of ‘Organizational Commitment’ between Active Duty and Non-Active Duty 2T2s and 21Rs who reported having experience with the program *differs significantly* from one another. Specifically, Non-Active Duty personnel appear to have higher levels of organizational commitment than do Active Duty personnel (AD $n = 491$, $M = 5.14$, $SD = 1.39$; Non-AD $n = 206$, $M = 5.67$, $SD = 1.08$; $t = -5.33$, $df = 490$, $p < .001$).

Tables 17 and 18 were used to interpret the findings as described above.

Table 17. Summary Statistics, Subgroup 1 - Component

	Component	N	Mean	Std. Deviation	Std. Error Mean
Factor 1 - Overall View	Active Duty	491	4.9522	.92781	.04187
	Non-Active Duty	206	5.0058	.91988	.06409
Factor 2 - Efficiency	Active Duty	491	4.3438	.97901	.04418
	Non-Active Duty	206	4.6447	.89505	.06236
Factor 3 - Training and Feedback	Active Duty	491	3.9801	1.24693	.05627
	Non-Active Duty	206	3.9976	1.25280	.08729
Factor 4 - Resources Required	Active Duty	491	3.8041	.93170	.04205
	Non-Active Duty	206	3.8039	1.03687	.07224
Factor 5 - Org Commitment	Active Duty	491	5.1446	1.38881	.06268
	Non-Active Duty	206	5.6663	1.07804	.07511
Factor 6 - Performance	Active Duty	491	3.7397	.98608	.04450
	Non-Active Duty	206	3.8670	.92234	.06426

Subgroup 2: Time in Service (TIS)

A second test was performed to determine if perceptions among respondents with zero to four years, four to ten years, ten to 15 years, 15 to 20 years, and 20 or more years time in service (TIS) differed with respect to each of the six factor scores. The number of usable cases assigned to each of these categories was 94 (13.5%), 144 (20.7%), 159

(22.8%), 145 (20.8%), and 155 (22.2%) respectively. The size of each category ensured that the normality assumption was satisfied.

Table 18. Independent Samples T-Test Results, Subgroup 1 - Component

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Factor 1 - Overall View	Equal variances assumed	.001	.971	-.698	695	.485	-.05362	.07683	-.20446	.09722
	Equal variances not assumed			-.700	387.785	.484	-.05362	.07656	-.20414	.09690
Factor 2 - Efficiency	Equal variances assumed	.288	.592	-3.795	695	.000	-.30087	.07928	-.45652	-.14522
	Equal variances not assumed			-3.937	418.355	.000	-.30087	.07643	-.45110	-.15064
Factor 3 - Training and Feedback	Equal variances assumed	.005	.945	-.168	695	.867	-.01743	.10365	-.22094	.18608
	Equal variances not assumed			-.168	383.132	.867	-.01743	.10385	-.22163	.18676
Factor 4 - Resources Required	Equal variances assumed	2.056	.152	.002	695	.998	.00019	.08002	-.15691	.15729
	Equal variances not assumed			.002	350.583	.998	.00019	.08359	-.16421	.16459
Factor 5 - Org Commitment	Equal variances assumed	28.816	.000	-4.816	695	.000	-.52166	.10832	-.73433	-.30899
	Equal variances not assumed			-5.333	490.406	.000	-.52166	.09783	-.71387	-.32945
Factor 6 - Performance	Equal variances assumed	2.200	.138	-1.584	695	.114	-.12728	.08033	-.28500	.03045
	Equal variances not assumed			1.628	409.371	.104	.12728	.07817	.28093	.02638

Respondents in this subgroup were assigned to one of five possible categories as listed above. Therefore, the One-Way ANOVA procedure was conducted to determine if the mean factor scores in all subgroup categories were equal. The results of the procedures indicated the variances were equal for the mean responses in each of the five TIS categories for Factor 1 ($F = 2.20, p < .07$), Factor 2 ($F = 1.35, p < .25$), Factor 4 ($F = 1.41, p < .23$), and Factor 6 ($F = 2.13, p < .08$); and that the variances were not equal for the mean responses in each of the five TIS categories for Factor 3 ($F = 4.23, p < .002$) and Factor 5 ($F = 10.96, p < .000$). These results can be seen in Table 19.

These results required further analysis since the ANOVA indicated that the mean responses were not equal for Factors 3 and 5. Post-hoc tests were required in order to

determine which mean responses differed among the five TIS categories. Since the variances among the mean responses for Factor 3 were considered equal (Levene Stat. = .37, $df1 = 4$, $df2 = 692$, $p < .83$), Tukey HSD post-hoc tests were performed; and since the variances among the mean responses for Factor 5 were not considered equal (Levene Stat. = 7.66, $df1 = 4$, $df2 = 692$, $p < .000$), Games-Howell post-hoc tests were performed.

The Tukey HSD multiple comparison post-hoc test results for Factor 3, ‘Training and Feedback’ indicated there was a significant difference in mean factor scores between respondents with between four and ten years TIS and respondents with between 15 and 20 years TIS ($MD = -.49$, $p < .007$). Perceptions of the pure pallet program’s feedback and training aspects were higher among respondents with between 15 and 20 years TIS than respondents with between four and ten years TIS.

The Tukey HSD multiple comparison post-hoc test results also indicated that there was a significant difference in mean factor scores between respondents with between four and ten years TIS and respondents with 20 or more years TIS ($MD = -.47$, $p < .009$). Perceptions of the pure pallet program’s feedback and training aspects were higher among respondents with 20 or more years TIS than respondents with between fours and ten years TIS. The results of the Tukey HSD post-hoc tests can be seen in Table 20 and the Factor 3 mean values for all subgroup categories are plotted in Figure 18.

The Games-Howell multiple comparison post-hoc test results for Factor 5, ‘Organizational Commitment’ indicated a number of significant differences in mean factor scores:

Table 19. ANOVA Results, Subgroup 2 – TIS

	Mean (SD)					F-Stat	p-value
	0-4 Years	4-10 Years	10-15 Years	15-20 Years	20+ Years		
	TIS (N=94)	TIS (N=144)	TIS (N=159)	TIS (N=145)	TIS (N=155)		
Factor 1: Overall View ^a	4.91 (.99)	4.86 (.87)	4.89 (.96)	5.04 (.89)	5.11 (.89)	2.20	.07
Factor 2: Efficiency ^b	4.46 (1.08)	4.41 (.85)	4.30 (.99)	4.46 (.93)	4.55 (.99)	1.35	.25
Factor 3: Training and Feedback ^c	3.97 (1.29)	3.71 (1.23)	3.84 (1.23)	4.20 (1.23)	4.19 (1.23)	4.23	.002
Factor 4: Resources Required ^d	3.68 (.93)	3.82 (.91)	3.93 (1.00)	3.72 (.86)	3.81 (1.05)	1.41	.23
Factor 5: Organizational Commitment ^e	4.92 (1.51)	4.96 (1.40)	5.16 (1.34)	5.56 (1.19)	5.74 (1.05)	10.96	.000
Factor 6: Performance ^f	3.55 (.96)	3.72 (.92)	3.86 (.97)	3.87 (.93)	3.80 (1.03)	2.13	.08

a Average score of responses on 7-point scale of 15 items; Reliability = .92; the higher the score, the greater the perception that the overall general idea of the pure pallet program is good.

b Average score of responses on 7-point scale of 5 items; Reliability = .82; the higher the score, the greater the perception that the pure pallet program is working efficiently.

c Average score of responses on 7-point scale of 4 items; Reliability = .81; the higher the score, the greater the perception that training and feedback is sufficient for the pure pallet program.

d Average score of responses on 7-point scale of 5 items; Reliability = .75; the higher the score, the greater the perception that the resources required to implement the pure pallet program are adequately provided.

e Average score of responses on 7-point scale of 4 items; Reliability = .86; the higher the score, the higher the level of

f Average score of responses on 7-point scale of 5 items; Reliability = .74; the higher the score, the greater the perception that the performance of the pure pallet program is good.

Table 20. Factor 3 Tukey HSD Results, Subgroup 2 – TIS

Dependent Variable: Factor 3 - Training and Feedback
Tukey HSD

(I) TIS_3	(J) TIS_3	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0 to 4 Years	4 to 10 Years	.25813	.16385	.514	-.1900	.7063
	10 to 15 Years	.13221	.16077	.924	-.3075	.5719
	15 to 20 Years	-.23004	.16363	.624	-.6776	.2175
	20+ Years	-.21369	.16154	.677	-.6555	.2281
4 to 10 Years	0 to 4 Years	-.25813	.16385	.514	-.7063	.1900
	10 to 15 Years	-.12592	.14215	.902	-.5147	.2629
	15 to 20 Years	-.48817*	.14538	.007	-.8858	-.0906
	20+ Years	-.47182*	.14302	.009	-.8630	-.0807
10 to 15 Years	0 to 4 Years	-.13221	.16077	.924	-.5719	.3075
	4 to 10 Years	.12592	.14215	.902	-.2629	.5147
	15 to 20 Years	-.36225	.14189	.080	-.7503	.0258
	20+ Years	-.34590	.13948	.096	-.7274	.0356
15 to 20 Years	0 to 4 Years	.23004	.16363	.624	-.2175	.6776
	4 to 10 Years	.48817*	.14538	.007	.0906	.8858
	10 to 15 Years	.36225	.14189	.080	-.0258	.7503
	20+ Years	.01635	.14276	1.000	-.3741	.4068
20+ Years	0 to 4 Years	.21369	.16154	.677	-.2281	.6555
	4 to 10 Years	.47182*	.14302	.009	.0807	.8630
	10 to 15 Years	.34590	.13948	.096	-.0356	.7274
	15 to 20 Years	-.01635	.14276	1.000	-.4068	.3741

*. The mean difference is significant at the .05 level.

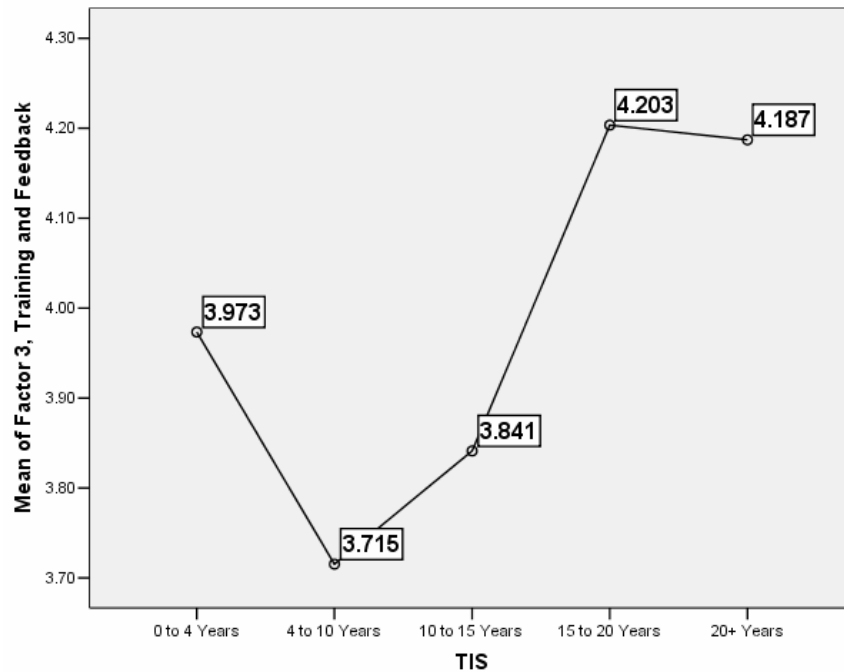


Figure 18. Factor 3 Means Plot, Subgroup 2 – TIS

- Respondents with between zero and four years TIS had lower levels of organizational commitment than did respondents with between 15 and 20 years TIS ($MD = -.64, p < .006$).
- Respondents with between zero and four years TIS had lower levels of organizational commitment than did respondents with 20 or more years TIS ($MD = -.81, p < .000$).
- Respondents with between four and ten years TIS had lower levels of organizational commitment than did respondents with between 15 and 20 years TIS ($MD = -.60, p < .001$).

- Respondents with between four and ten years TIS had lower levels of organizational commitment than did respondents with 20 or more years TIS ($MD = -.78, p < .000$).
- Respondents with between ten and 15 years TIS had lower levels of organizational commitment than did respondents with between 15 and 20 years TIS ($MD = -.40, p < .04$).
- Respondents with between ten and 15 years TIS had lower levels of organizational commitment than did respondents with between 20 or more years TIS ($MD = -.58, p < .000$).

The results of the Games-Howell post-hoc tests can be seen in Table 21 while the Factor 5 means are plotted in Figure 19.

Subgroup 3: Rank

A third test was performed to determine if perceptions among respondents between the grade of E-1 to E-4, O-1 and O-2; E-5 and E-6; E-7 to E-9, O-1E, O-2E, O-3, and O-3E; and O-4 to O-6 differed with respect to each of the six factor scores. The number of usable cases assigned to each of these categories was 122 (17.5%), 281 (40.3%), 146 (20.9%), 88 (12.6%), and 60 (8.6%) respectively. The size of each category ensured that the normality assumption was satisfied.

Respondents in this subgroup were assigned to one of five possible categories as listed above. Therefore, the One-Way ANOVA procedure was conducted to determine if the mean factor scores in all subgroup categories were equal. The results of the procedures indicated the variances were equal for the mean responses in each of the five

Table 21. Factor 5 Games-Howell Results, Subgroup 2 – TIS

Dependent Variable: Factor 5 - Org Commitment
Games-Howell

(I) TIS_3	(J) TIS_3	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
0 to 4 Years	4 to 10 Years	-.03454	.19494	1.000	-.5715	.5024
	10 to 15 Years	-.23170	.18866	.735	-.7517	.2883
	15 to 20 Years	-.63654*	.18449	.006	-1.1454	-.1277
	20+ Years	-.81318*	.17741	.000	-1.3031	-.3232
4 to 10 Years	0 to 4 Years	.03454	.19494	1.000	-.5024	.5715
	10 to 15 Years	-.19716	.15788	.723	-.6305	.2362
	15 to 20 Years	-.60200*	.15287	.001	-1.0217	-.1823
	20+ Years	-.77864*	.14425	.000	-1.1748	-.3824
10 to 15 Years	0 to 4 Years	.23170	.18866	.735	-.2883	.7517
	4 to 10 Years	.19716	.15788	.723	-.2362	.6305
	15 to 20 Years	-.40484*	.14477	.043	-.8021	-.0075
	20+ Years	-.58148*	.13564	.000	-.9537	-.2092
15 to 20 Years	0 to 4 Years	.63654*	.18449	.006	.1277	1.1454
	4 to 10 Years	.60200*	.15287	.001	.1823	1.0217
	10 to 15 Years	.40484*	.14477	.043	.0075	.8021
	20+ Years	-.17664	.12977	.653	-.5329	.1796
20+ Years	0 to 4 Years	.81318*	.17741	.000	.3232	1.3031
	4 to 10 Years	.77864*	.14425	.000	.3824	1.1748
	10 to 15 Years	.58148*	.13564	.000	.2092	.9537
	15 to 20 Years	.17664	.12977	.653	-.1796	.5329

*. The mean difference is significant at the .05 level.

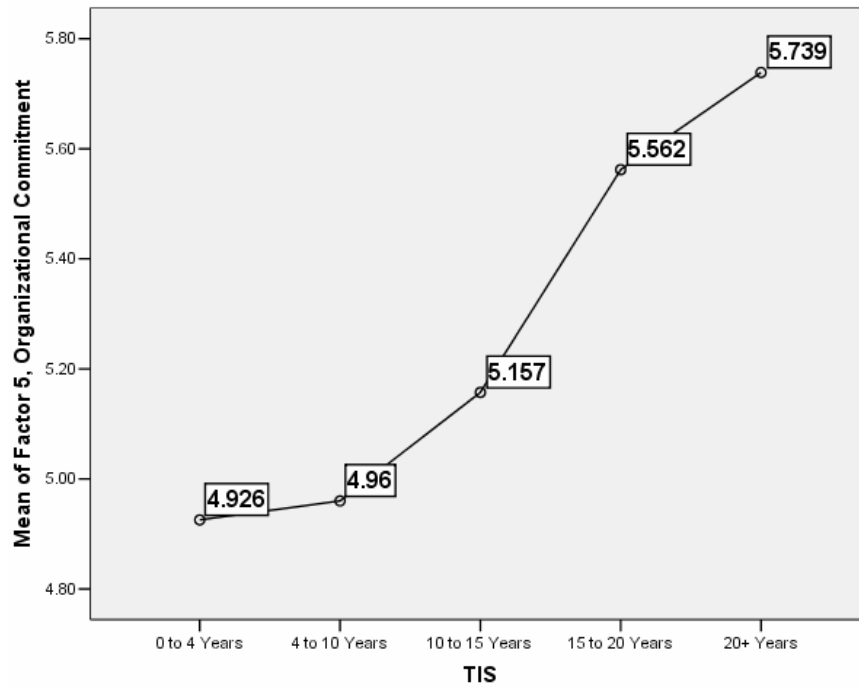


Figure 19. Factor 5 Means Plot, Subgroup 2 – TIS

rank categories for Factor 2 ($F = 1.20, p < .31$) and Factor 6 ($F = 1.59, p < .18$); and that the variances were not equal for the responses in each of the five rank categories for Factor 1 ($F = 3.36, p < .01$), Factor 3 ($F = 5.41, p < .000$), Factor 4 ($F = 2.96, p < .02$), and Factor 5 ($F = 22.37, p < .000$). These results can be seen in Table 22.

Table 22. ANOVA Results, Subgroup 3 – Rank

	Mean (SD)					F-Stat	p-value
	E-1 to E-4, O-1 and O-2 (N=122)	E-5 and E-6 (N=281)	E-7 to E-9 (N=146)	O-1E, O-2E, O-3, O-3E (N=88)	O-4 to O-6 (N=60)		
Factor 1: Overall View ^a	4.91 (1.01)	4.88 (.93)	5.16 (.89)	4.86 (.82)	5.17 (.89)	3.36	.01
Factor 2: Efficiency ^b	4.53 (1.06)	4.42 (.97)	4.49 (.99)	4.26 (.78)	4.42 (.87)	1.20	.31
Factor 3: Training and Feedback ^c	4.00 (1.28)	3.75 (1.28)	4.25 (1.23)	4.01 (1.10)	4.33 (1.10)	5.41	.000
Factor 4: Resources Required ^d	3.74 (.99)	3.95 (.98)	3.71 (.99)	3.67 (.78)	3.67 (.95)	2.96	.02
Factor 5: Organizational Commitment ^e	4.90 (1.52)	4.94 (1.31)	5.75 (1.13)	5.70 (1.03)	6.12 (.82)	22.37	.000
Factor 6: Performance ^f	3.60 (.93)	3.85 (.96)	3.76 (1.04)	3.77 (.88)	3.86 (1.00)	1.59	.18

a Average score of responses on 7-point scale of 15 items; Reliability = .92; the higher the score, the greater the perception that the overall general idea of the pure pallet program is good.

b Average score of responses on 7-point scale of 5 items; Reliability = .82; the higher the score, the greater the perception that the pure pallet program is working efficiently.

c Average score of responses on 7-point scale of 4 items; Reliability = .81; the higher the score, the greater the perception that training and feedback is sufficient for the pure pallet program.

d Average score of responses on 7-point scale of 5 items; Reliability = .75; the higher the score, the greater the perception that the resources required to implement the pure pallet program are adequately provided.

e Average score of responses on 7-point scale of 4 items; Reliability = .86; the higher the score, the higher the level of

f Average score of responses on 7-point scale of 5 items; Reliability = .74; the higher the score, the greater the perception that the performance of the pure pallet program is good.

Further analysis was required since the ANOVA results indicated that the mean responses were not equal for Factors 1, 3, 4, and 5 as indicated above. Post-hoc tests were required in order to determine which mean responses differed among the five categories. Since the variances among the mean responses were considered equal for Factor 1 (Levene Stat. = 1.46, $df1 = 4, df2 = 692, p < .21$), Factor 3 (Levene Stat. = 1.27, $df1 = 4, df2 = 692, p < .28$), and Factor 4 (Levene Stat. = 1.00, $df1 = 4, df2 = 692, p < .41$), Tukey HSD post-hoc tests were performed; and since the variances among the

mean responses were not considered equal for Factor 5 (Levene Stat. = 11.48, $df1 = 4$, $df2 = 692$, $p < .000$), Games-Howell post-hoc tests were performed.

The Tukey HSD multiple comparison post-hoc test results for Factor 1, ‘Overall View’ indicated there was a significant difference in mean factor scores between respondents in the grade of E-5 and E-6 and respondents in the grade of E-7 to E-9 ($MD = -.28$, $p < .03$). Respondents in the grade of E-5 and E-6 had lower perceptions of the general concept of the pure pallet program than did respondents in the grade of E-7 to E-9. The results of the Tukey HSD post-hoc tests can be seen in Table 23 and the Factor 1 mean values for all subgroup categories are plotted in Figure 20.

Table 23. Factor 1 Tukey HSD Results, Subgroup 3 – Rank

Dependent Variable: Factor 1 - Overall View
Tukey HSD

(I) Rank	(J) Rank	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
E-1 to E-4, O-1 and O-2	E-5 and E-6	.03229	.09963	.998	-.2402	.3048
	E-7 to E-9	-.24616	.11272	.187	-.5544	.0621
	O-1E, O-2E, O-3, and O-3E	.05154	.12852	.995	-.3000	.4030
	O-4 to O-6	-.25967	.14490	.379	-.6560	.1366
E-5 and E-6	E-1 to E-4, O-1 and O-2	-.03229	.09963	.998	-.3048	.2402
	E-7 to E-9	-.27844*	.09375	.026	-.5348	-.0220
	O-1E, O-2E, O-3, and O-3E	.01925	.11225	1.000	-.2878	.3263
	O-4 to O-6	-.29196	.13069	.168	-.6494	.0655
E-7 to E-9	E-1 to E-4, O-1 and O-2	.24616	.11272	.187	-.0621	.5544
	E-5 and E-6	.27844*	.09375	.026	.0220	.5348
	O-1E, O-2E, O-3, and O-3E	.29770	.12401	.116	-.0415	.6369
	O-4 to O-6	-.01352	.14092	1.000	-.3989	.3719
O-1E, O-2E, O-3, and O-3E	E-1 to E-4, O-1 and O-2	-.05154	.12852	.995	-.4030	.3000
	E-5 and E-6	-.01925	.11225	1.000	-.3263	.2878
	E-7 to E-9	-.29770	.12401	.116	-.6369	.0415
	O-4 to O-6	-.31121	.15385	.256	-.7320	.1096
O-4 to O-6	E-1 to E-4, O-1 and O-2	.25967	.14490	.379	-.1366	.6560
	E-5 and E-6	.29196	.13069	.168	-.0655	.6494
	E-7 to E-9	.01352	.14092	1.000	-.3719	.3989
	O-1E, O-2E, O-3, and O-3E	.31121	.15385	.256	-.1096	.7320

*. The mean difference is significant at the .05 level.

The Tukey HSD multiple comparison post-hoc test results for Factor 3, ‘Training and Feedback’ indicated there was a significant difference in mean factor scores between respondents in the grade of E-5 and E-6 and respondents in the grade of E-7 to E-9 ($MD = -.50, p < .001$). Respondents in the grade of E-5 and E-6 had lower perceptions of training and feedback for the pure pallet program than did respondents in the grade of E-7 to E-9. The results also indicated there was a significant difference in mean factor scores

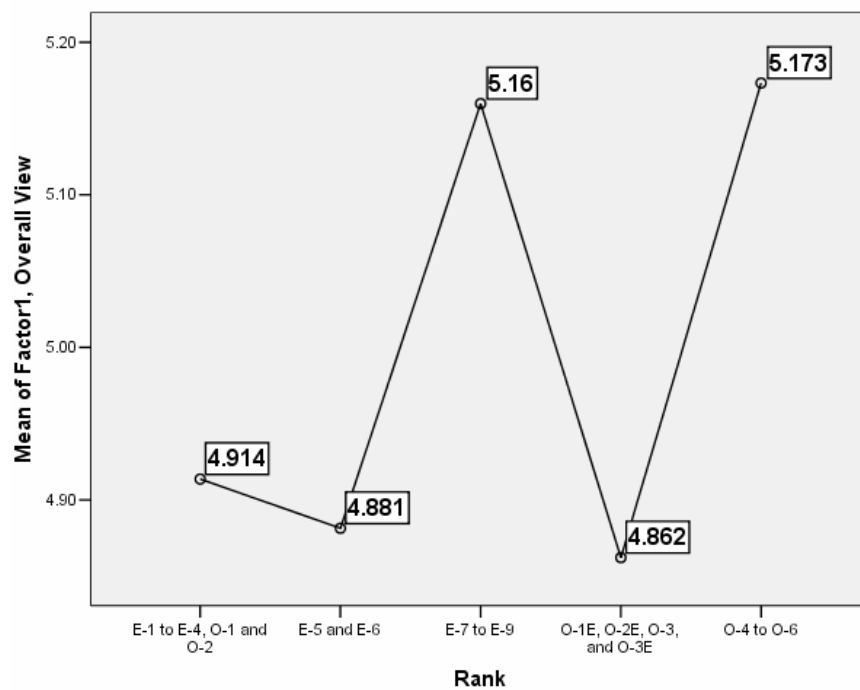


Figure 20. Factor 1 Means Plot, Subgroup 3 – Rank

between respondents in the grade of E-5 and E-6 and respondents in the grade of O-4 to O-6 ($MD = -.58, p < .01$). Respondents in the grade of E-5 and E-6 had lower perceptions of the general concept of the pure pallet program than did respondents in the grade of O-4 to O-6. The results of the Tukey HSD post-hoc tests can be seen in Table 24 and the Factor 3 mean values for all subgroup categories are plotted in Figure 21.

The Tukey HSD multiple comparison post-hoc test results for Factor 4, ‘Resources Required’ indicated there was no significant difference in mean factor scores between any categories of respondents in Subgroup 3 – Rank. This contradicts the ANOVA results for Subgroup 3 as described and displayed above. Nonetheless the results of the Tukey HSD post-hoc tests are provided in Table 25 so the reader can verify the results as well. The Factor 4 mean values for all subgroup categories are also plotted in Figure 22.

Table 24. Factor 3 Tukey HSD Results, Subgroup 3 – Rank

Dependent Variable: Factor 3 - Training and Feedback
Tukey HSD

(I) Rank	(J) Rank	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
E-1 to E-4, O-1 and O-2	E-5 and E-6	.25170	.13361	.327	-.1137	.6171
	E-7 to E-9	-.24728	.15115	.475	-.6607	.1661
	O-1E, O-2E, O-3, and O-3E	-.00522	.17234	1.000	-.4766	.4661
	O-4 to O-6	-.32719	.19431	.445	-.8586	.2042
E-5 and E-6	E-1 to E-4, O-1 and O-2	-.25170	.13361	.327	-.6171	.1137
	E-7 to E-9	-.49898*	.12572	.001	-.8428	-.1551
	O-1E, O-2E, O-3, and O-3E	-.25692	.15053	.430	-.6686	.1548
	O-4 to O-6	-.57888*	.17525	.009	-1.0582	-.0996
E-7 to E-9	E-1 to E-4, O-1 and O-2	.24728	.15115	.475	-.1661	.6607
	E-5 and E-6	.49898*	.12572	.001	.1551	.8428
	O-1E, O-2E, O-3, and O-3E	.24206	.16630	.592	-.2128	.6969
	O-4 to O-6	-.07991	.18897	.993	-.5967	.4369
O-1E, O-2E, O-3, and O-3E	E-1 to E-4, O-1 and O-2	.00522	.17234	1.000	-.4661	.4766
	E-5 and E-6	.25692	.15053	.430	-.1548	.6686
	E-7 to E-9	-.24206	.16630	.592	-.6969	.2128
	O-4 to O-6	-.32197	.20631	.523	-.8862	.2423
O-4 to O-6	E-1 to E-4, O-1 and O-2	.32719	.19431	.445	-.2042	.8586
	E-5 and E-6	.57888*	.17525	.009	.0996	1.0582
	E-7 to E-9	.07991	.18897	.993	-.4369	.5967
	O-1E, O-2E, O-3, and O-3E	.32197	.20631	.523	-.2423	.8862

*. The mean difference is significant at the .05 level.

The Games-Howell multiple comparison post-hoc test results for Factor 5, ‘Organizational Commitment’ indicated a number of significant differences in mean factor scores between:

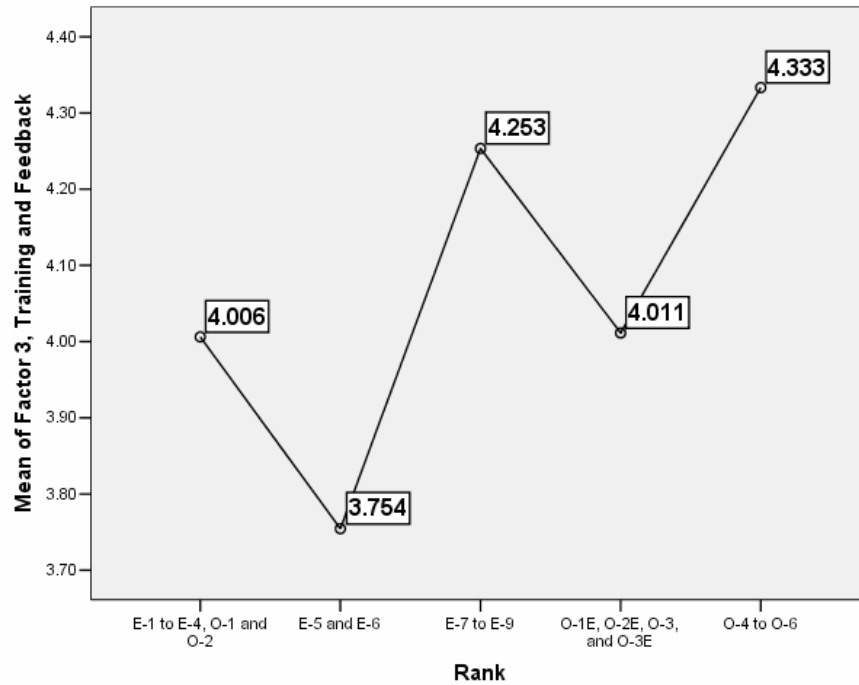


Figure 21. Factor 3 Means Plot, Subgroup 3 – Rank

- Respondents in the grade of E-1 to E-4, O-1, and O-2 had lower levels of organizational commitment than did respondents in the grade of E-7 to E-9 ($MD = -.85, p < .000$).
- Respondents in the grade of E-1 to E-4, O-1, and O-2 had lower levels of organizational commitment than did respondents in the grade of O-1E, O-2E, O-3, and O-3E ($MD = -.81, p < .000$).
- Respondents in the grade of E-1 to E-4, O-1, and O-2 had lower levels of organizational commitment than did respondents in the grade of O-4 to O-6 ($MD = -1.22, p < .000$).

Table 25. Factor 4 Tukey HSD Results, Subgroup 3 – Rank

Dependent Variable: Factor 4 - Resources Required
Tukey HSD

(I) Rank	(J) Rank	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
E-1 to E-4, O-1 and O-2	E-5 and E-6	-.21767	.10385	.223	-.5017	.0664
	E-7 to E-9	.02785	.11749	.999	-.2935	.3492
	O-1E, O-2E, O-3, and O-3E	.06334	.13396	.990	-.3031	.4297
	O-4 to O-6	.06940	.15104	.991	-.3437	.4825
E-5 and E-6	E-1 to E-4, O-1 and O-2	.21767	.10385	.223	-.0664	.5017
	E-7 to E-9	.24552	.09772	.089	-.0217	.5128
	O-1E, O-2E, O-3, and O-3E	.28101	.11701	.116	-.0390	.6010
	O-4 to O-6	.28707	.13622	.218	-.0855	.6596
E-7 to E-9	E-1 to E-4, O-1 and O-2	-.02785	.11749	.999	-.3492	.2935
	E-5 and E-6	-.24552	.09772	.089	-.5128	.0217
	O-1E, O-2E, O-3, and O-3E	.03549	.12927	.999	-.3181	.3890
	O-4 to O-6	.04155	.14689	.999	-.3602	.4433
O-1E, O-2E, O-3, and O-3E	E-1 to E-4, O-1 and O-2	-.06334	.13396	.990	-.4297	.3031
	E-5 and E-6	-.28101	.11701	.116	-.6010	.0390
	E-7 to E-9	-.03549	.12927	.999	-.3890	.3181
	O-4 to O-6	.00606	.16037	1.000	-.4325	.4447
O-4 to O-6	E-1 to E-4, O-1 and O-2	-.06940	.15104	.991	-.4825	.3437
	E-5 and E-6	-.28707	.13622	.218	-.6596	.0855
	E-7 to E-9	-.04155	.14689	.999	-.4433	.3602
	O-1E, O-2E, O-3, and O-3E	-.00606	.16037	1.000	-.4447	.4325

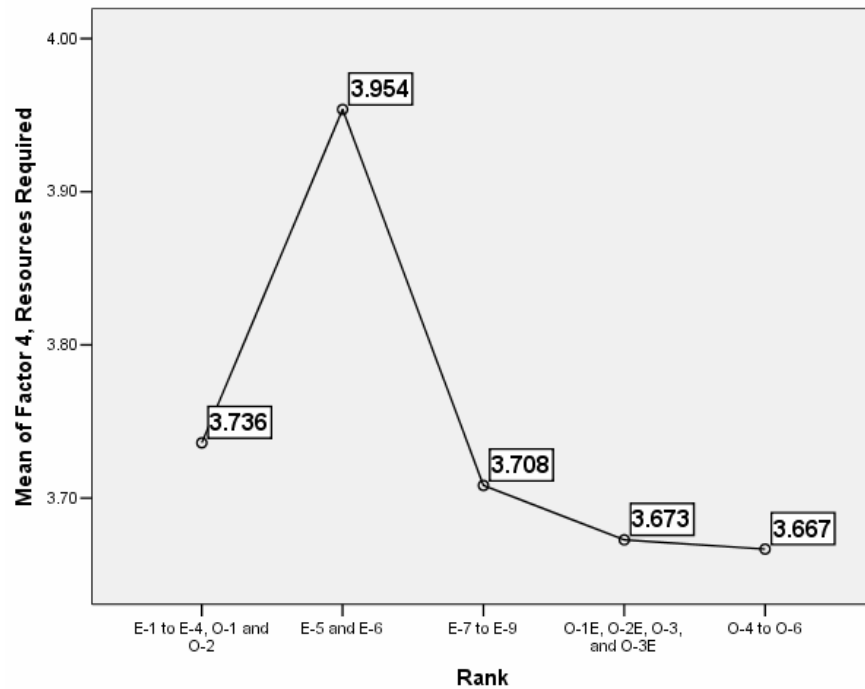


Figure 22. Factor 4 Means Plot, Subgroup 3 – Rank

- Respondents in the grade of E-5 and E-6 had lower levels of organizational commitment than did respondents in the grade of E-7 to E-9 ($MD = -.81, p < .000$).
- Respondents in the grade of E-5 and E-6 had lower levels of organizational commitment than did respondents in the grade of O-1E, O-2E, O-3, and O-3E ($MD = -.77, p < .04$).
- Respondents in the grade of E-5 and E-6 had lower levels of organizational commitment than did respondents in the grade of O-4 to O-6 ($MD = -1.18, p < .000$).

The results of the Games-Howell post-hoc tests can be seen in Table 26 while the Factor 5 means are plotted in Figure 23.

Additional Comments

A total of 217 respondents provided additional comments which are included in Appendix D. Also included are the comments provided by eight separate respondents and received directly via email; these were not recorded to the data set by the interactive WebSIRS program as provided by the other 217 respondents.

Summary

This chapter began by presenting the demographic data of survey respondents, which serve as indicators of the external validity of the research effort. The factor analysis procedures used to analyze the survey responses were then discussed in detail. After the factors were identified, a detailed discussion of the Independent Samples T-Test

Table 26. Factor 5 Games-Howell Results, Subgroup 3 – Rank

Dependent Variable: Factor 5 - Org Commitment
Games-Howell

(I) Rank	(J) Rank	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
E-1 to E-4, O-1 and O-2	E-5 and E-6	-.04401	.15867	.999	-.4808	.3927
	E-7 to E-9	-.85108*	.16681	.000	-1.3099	-.3923
	O-1E, O-2E, O-3, and O-3E	-.80905*	.17647	.000	-1.2947	-.3234
	O-4 to O-6	-1.22117*	.17391	.000	-1.7004	-.7419
E-5 and E-6	E-1 to E-4, O-1 and O-2	.04401	.15867	.999	-.3927	.4808
	E-7 to E-9	-.80707*	.12221	.000	-1.1423	-.4719
	O-1E, O-2E, O-3, and O-3E	-.76504*	.13509	.000	-1.1373	-.3928
	O-4 to O-6	-1.17716*	.13173	.000	-1.5415	-.8129
E-7 to E-9	E-1 to E-4, O-1 and O-2	.85108*	.16681	.000	.3923	1.3099
	E-5 and E-6	.80707*	.12221	.000	.4719	1.1423
	O-1E, O-2E, O-3, and O-3E	.04203	.14457	.998	-.3560	.4400
	O-4 to O-6	-.37009	.14143	.072	-.7606	.0204
O-1E, O-2E, O-3, and O-3E	E-1 to E-4, O-1 and O-2	.80905*	.17647	.000	.3234	1.2947
	E-5 and E-6	.76504*	.13509	.000	.3928	1.1373
	E-7 to E-9	-.04203	.14457	.998	-.4400	.3560
	O-4 to O-6	-.41212	.15270	.059	-.8340	.0098
O-4 to O-6	E-1 to E-4, O-1 and O-2	1.22117*	.17391	.000	.7419	1.7004
	E-5 and E-6	1.17716*	.13173	.000	.8129	1.5415
	E-7 to E-9	.37009	.14143	.072	-.0204	.7606
	O-1E, O-2E, O-3, and O-3E	.41212	.15270	.059	-.0098	.8340

*. The mean difference is significant at the .05 level.

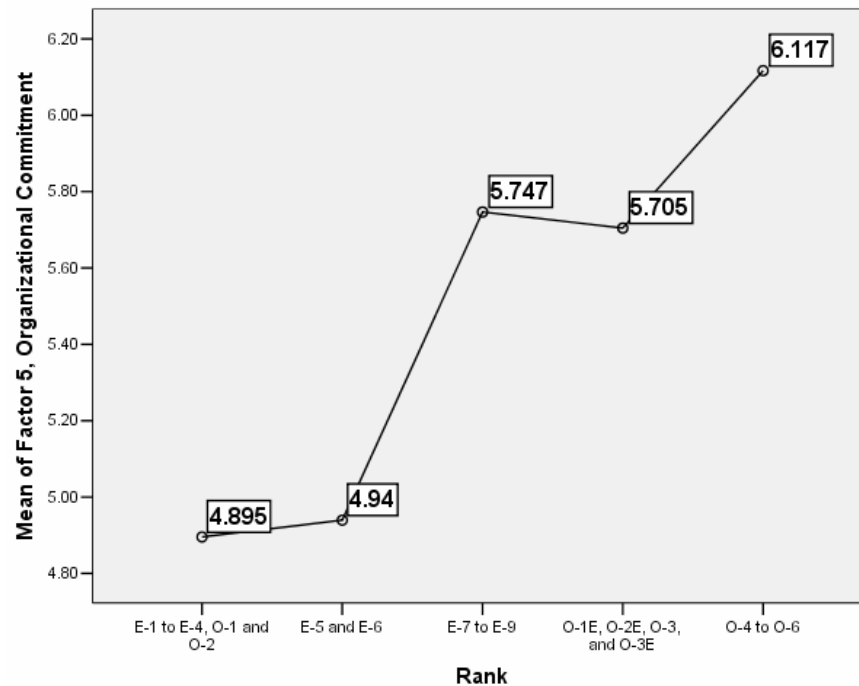


Figure 23. Factor 5 Means Plot, Subgroup 3 – Rank

and Analysis of Variance (ANOVA) procedures used to determine whether differences in perceptions exist among different subgroups of the respondents was presented. Finally, this chapter concluded by stating that the 217 responses to the open-ended survey item (Item 42) could found in Appendix D. While this chapter focused on the specific findings and analysis results, Chapter V focuses on the implications of these findings.

V. Conclusions and Recommendations

Introduction

The objective of this research was to answer the following two-part question: Is the pure pallet program working as intended and is there a perception problem among the Air Force personnel involved in program implementation at the aerial ports? This chapter presents the major conclusions drawn from the results and analysis of this research effort. Recommendations for educating all air transportation specialists and logistics readiness officers in all Air Force components and recommendations for further research are also provided. Finally, limitations of this research are discussed.

Conclusions

During this research process, one thing has been made very clear; there are literally hundreds, if not thousands, of journal articles, monographs, technical reports, studies, and books published pertaining to customer service in some fashion or another. Probably the most interesting findings were the issues discussed by McIntyre (1977), Warren (1994), and Gamino (1971). McIntyre discussed the need for improved packaging, containerization, and sub-containerization; Warren stressed the importance of suboptimization avoidance; and Gamino pointed out that logistics support systems were not designed to provide *effective* support to combatant commanders. Despite the passing of nearly three decades, improved packaging, containerization, and sub-containerization; suboptimization avoidance; and *effective* support to combatant commanders have become

the main focus of a single organization—USTRANSCOM as the Distribution Process Owner (DPO). Now that the appropriate structure is in place, it is important to focus now on the personnel who actually provide *effective* support to combatant commanders.

After examining the events which led to the implementation of the pure pallet program, it appears that the Commander of United States Transportation Command (USTRANSCOM), as the newly appointed Distribution Process Owner (DPO), is well on track to improving warfighter support through improvements in the Defense Transportation System (DTS). While yet unpublished, RAND's in-depth study on end-to-end distribution, a significant portion of which is devoted to the pure pallet program, validates that the pure pallet program is working as intended. The program has been effective in that both end-to-end distribution times to the warfighter and the number of lost shipments were reduced. Furthermore, these improvements in effectiveness were not realized at the expense of efficiency within the DTS.

This thesis yielded a number of interesting insights when comparing the perceptions of key Air Force personnel making the pure pallet program work with the program's actual performance.

The percentage of air transportation specialists (2T2s) and logistics readiness officers (21Rs) who have knowledge of the pure pallet program is small (25.62%) relative to the potential pool of personnel available from all three Air Force components who could potentially be involved in implementing the program. Even smaller is the percentage of those personnel having knowledge of the program, but who also understand the larger goals of end-to-end distribution, namely sub-optimization avoidance.

Of importance is the fact that perceptions of the pure pallet program are significantly different across various demographic subgroups. Non-Active Duty personnel believe the pure pallet program is more efficient than do Active Duty personnel. Also, Non-Active Duty personnel appear to have higher levels of organizational commitment than do Active Duty personnel. It is impossible to explain through this research exactly why such a disparity exists between these two demographic groups with respect to their perceptions of the program's efficiency and their level of organizational commitment. One possible explanation may be that Guard and Reserve personnel, usually volunteers, are typically called to active duty for at most one year at a time, whereas active duty personnel in these two career fields have been subjected to very high levels of operations tempo, especially over the past four years.

The significant differences between various categories of personnel grouped by Total Time in Service (TIS) are also important. It appears that all of the significant differences among these various categories suggest that those with more TIS, and presumably hold a higher rank, would naturally understand the bigger picture despite any such lack of pure pallet program feedback and training. It may also be possible that those who have been associated with the U.S. Air Force longer, and hence closer to retirement-eligible, would have higher levels of organizational commitment than those with less TIS.

The significant differences between various categories grouped by rank are also important. It appears that all of the significant differences among these various categories suggest that those who hold higher rank perceive the general concept of the pure pallet program to be better, perceive that pure pallet program training and feedback are more sufficient, and have higher levels of organizational commitment, than those who

hold a lower rank. As mentioned previously, it may be possible that those who hold a higher rank have simply been associated with the U.S. Air Force longer are more committed to the organization and generally understand the bigger picture than to those with lower rank.

While this research does not explain exactly why the aforementioned differences were significant, it does provide feedback to senior leaders that special consideration should be made to this fact when managing the pure pallet program.

After a cursory review of the written responses, it appears that there is a lack of common perceptions among personnel *even within* a given rank subgroup. Several of the responses identified concerns that personnel out in the field are not familiar with the program. Other respondents indicated that traditional metrics used to monitor the flow of cargo through aerial ports, such as Port-Hold-Time (PHT) and pallet and aircraft utilization, need to be adjusted to reflect the unique aspects of the pure pallet program. There is no clear distinction among any demographic. While this research does not utilize a content analysis methodology to analyze the written responses, the perceptions of these respondents, through their written responses, vary from one end of the spectrum to the other, with no demographic clustering.

For example, a number of E-4s indicated they were adequately familiar with the program and offered suggestions for its improvement (Case #s 151 and 237), while other E-4s appeared disgruntled for “making our job harder” (Case # 719). Another example is an O-6 who appeared to understand the purpose of the program and strongly supported it (Case #s 340 and 1508), while another O-6 (Case # 907) claimed that creation of the pure pallet program was a result of too many pilots in logistics billets who “don’t know how to

say ‘No’ to the Army”. This wide range of comments clearly indicates the lack of convergence of the perceptions among all who are involved with pure pallet program implementation.

While it may seem reasonable to conclude that respondents whose perceptions of the program are congruent with the actual effects of the program are correct, this research does not attempt to assert which position is right or wrong. It is simply not appropriate to make that determination herein. Instead, this research simply determined that there is, in fact, a perception problem, the existence of which should be considered by leaders and managers who oversee pure pallet program activities.

Recommendations

First, all personnel in the air transportation and logistics readiness career fields should be educated on the general concept of the pure pallet program, which should include a general understanding of how the program works. Emphasis should be placed on the importance of suboptimization avoidance and warfighter support as the number one priority. This recommendation can be accomplished in a number of ways including outreach teams, training videos, or even as simple a method as unit Commander’s Calls or equivalent, assuming the unit commander understands the concept first.

Second, the successes and failures of logistics support operations over the last few years should be incorporated into applicable formal training and technical training schools. Again, emphasis should be placed on the importance of suboptimization avoidance and warfighter support as the number one priority.

Finally, a follow-up survey should be administered again to all personnel in the air transportation and logistics readiness officer career fields at a reasonable amount of time following execution of recommendations one and two above. Should the results of this follow-up survey yield identical or similar results as found herein, further research may be required to properly ascertain the root cause of the differences in perceptions.

Assuming that people in general are resistant to change, there may exist a problem more detrimental to the pure pallet program, or any process improvement initiative for that matter. Specifically, older NCOs and officers, who may be more prone to resist change simply because “that’s not the way they were raised,” may be the root cause of the perception problems. At first glance, this does not seem likely given the mean differences in perceptions discovered and highlighted in this research. Instead, the differences may simply be attributable to the reasons discussed above, namely that younger personnel naturally have lower levels of organizational commitment and a more narrow understanding of the bigger picture.

The author does not recommend a solution for the former; to effect change with respect to something as complex as organizational commitment requires a very deep understanding of organizational behavior, as well as other factors such as the motives for joining the military. This author does, however, recommend a solution for the latter. Intense education of the more junior members will broaden their understanding of the bigger picture, which will in turn create a more customer-oriented workforce to provide even better support to the warfighter.

Recommendations for Future Research

In addition to administering a follow-up survey as described above, the survey developed for this research effort may prove useful in measuring the perceptions of those involved in an entirely different process improvement initiative. Furthermore, studies could be conducted which investigate possible root causes for such a perception gap. This type of research may identify additional latent variables which hinder effective implementation of any major process change such as this one.

A longitudinal study may also provide useful information in determining whether or not pure pallet program education and training intervention led to a convergence of pure pallet program perceptions. The focus would of course not be to *effect* perceptions or otherwise *convince* everyone of the merits and/or limitations of the program, but to determine if perceptions were *affected* as a result of said intervention. The importance of such research lies in the following frequently spoken phrase: “Perceptions are reality.” From the perspective of each individual, this phrase is a fact. However, it is the collective human effort that ultimately leads to success or failure of any process improvement initiative.

Limitations

There are several limitations to this study. First, all data collected was self-reported by participating air transportation specialists and the logistics readiness officers. Self-reported data relies on the accuracy of the perceptions of those surveyed (Cook & Campbell, 1979). These perceptions might contain what is referred to as self-serving bias, the results of which could have been biased through respondents’ personal

experiences. It is also possible that a common method bias is present since the survey items all pertained to the pure pallet program (Podsakoff and Organ, 1986). Specifically, common method bias could be a problem since these results came only from one source. However, quantifying this potential bias is near impossible given that all but four items were developed specifically for this research effort.

Another possible limitation is that of acquiescence, which describes the possibility that respondents want to provide socially acceptable responses to survey questions (Podsakoff and Organ, 1986). An attempt was made to mitigate this possibility by providing as little detail in the cover letter as possible as to the purpose the survey or the nature of the questions within the survey. While respondents knew that this research was sponsored by Air Mobility Command (AMC), the survey was designed with strict anonymity and confidentiality in mind. The intent was to prevent respondents from staging their answers for fear of reprisal, thereby measuring their true perceptions of the pure pallet program.

Another limitation was the relatively short time the pure pallet program has been in existence. While the concept of pure pallets dates back to the Air Lines of Communication (ALOC) program established in the 1970s, the context of the pure pallet program as known today by Air Force personnel is relatively new. As such, this study should be repeated within the next five years or so to determine if the perceptions of the pure pallet program have changed over time, as recommended earlier.

Additionally, all survey questions (aside from demographics) were measured on a 7-point Likert scale which did not include an option for Not Applicable (N/A). One or two survey respondents provided feedback to that effect and would have preferred the

option to check 'N/A'. This option was not used in this study to ensure that a sufficient number of respondents could be used to adequately provide statistical power during the data analysis stage.

Sample error is defined as the result of collecting data from only a subset, rather than all, of the members of the sample frame (Alreck, 2004). Of the 13,436 members assumed to have received and read the email invitation to participate in the survey, only 2,990 (22.3%) actually participated in the survey. The remaining 10,431 members (excluding the 15 invalid cases) fall into the category of nonresponse error.

Measurement error represents any questions that were misunderstood. A slight problem with measurement error was evident when determining the level of nonresponse error. Specifically, the variable of comparison was the level of pure pallet program experience, which was computed by adding up the total number of months of pure pallet program experience reported in response to Item 9 in Part I of the survey. Interestingly enough, a number of respondents indicated they had more than 24 months experience with the pure pallet program. This clearly could not have been true since the program wasn't implemented at select aerial ports until early 2004. Respondents selected to determine nonresponse error who also indicated greater than 24 months experience with the pure pallet program ($n = 12, 11, \text{ and } 18$ respectively) were excluded from nonresponse analysis. The specific extent to which other instances of measurement error existed was unable to be determined.

A fundamental question pertaining to coverage error is: Does the list contain everyone in the survey population? For this study the answer was yes. Members in the personnel system made it on the original list provided by AFPC; even prisoners were

included. The list contained only names of people who are in the study population. A source of potential bias is the name itself is maintained by the Air Force in the personnel data system, but the email address used is updated by the member. A positive point, however, is that each name was only included on the list once, and every name on the list had an associated email address. Theoretically, all members could have received the email invitation to participate in the survey. Even though the list indicated that all members were somehow connected to the 2T2 or 21R career field, the possibility that some members were no longer in the 2T2 or 21R career field any longer was addressed. The members who could be identified as no longer in the interested career fields were deleted from the list. Most importantly, however, is that each member has a known same chance of being selected to receive the email invitation.

While some studies attempt to determine the sample size necessary to establish and maintain a certain degree of confidence and statistical power, a more limited constraint existed in this study. While it could have been easy to determine how many responses were required in order to have a certain level of confidence, doing so would not guarantee such a response rate. Remember that the focus was on gaining the perceptions of the members who reported *having knowledge of and/or experience* with the pure pallet program. The final decision was to err on the conservative side and survey everyone in the sample frame—all members on the list provided by AFPC; one could argue that a census was conducted.

The effects of computer literacy might have been slight during this study. One assumption made in this study was that all military personnel know how to use the

internet, which was evidenced by the fact that all members on the list had an email address.

During the data collection process, a number of members complained that they could not get the survey to work correctly or could not get the web-based server to properly record the data submitted. This problem was addressed and resolved early (within the first three days) in the data collection phase while the survey link was active. Another problem cited was a respondent (case # 2004) who had criticism of the survey design, specifically that “this survey should be more step-based ... meaning if you choose one option, your next options should be predicated upon that previous response. To be honest, I have no idea what the pure pallet program is or does.” As previously noted, this comment, along with all others is provided in Appendix D.

Due to the very large number of questionnaires required to be transmitted, there was no way to prevent the appearance that the members were on a massive email list. This was deemed an acceptable limitation given the time constraints.

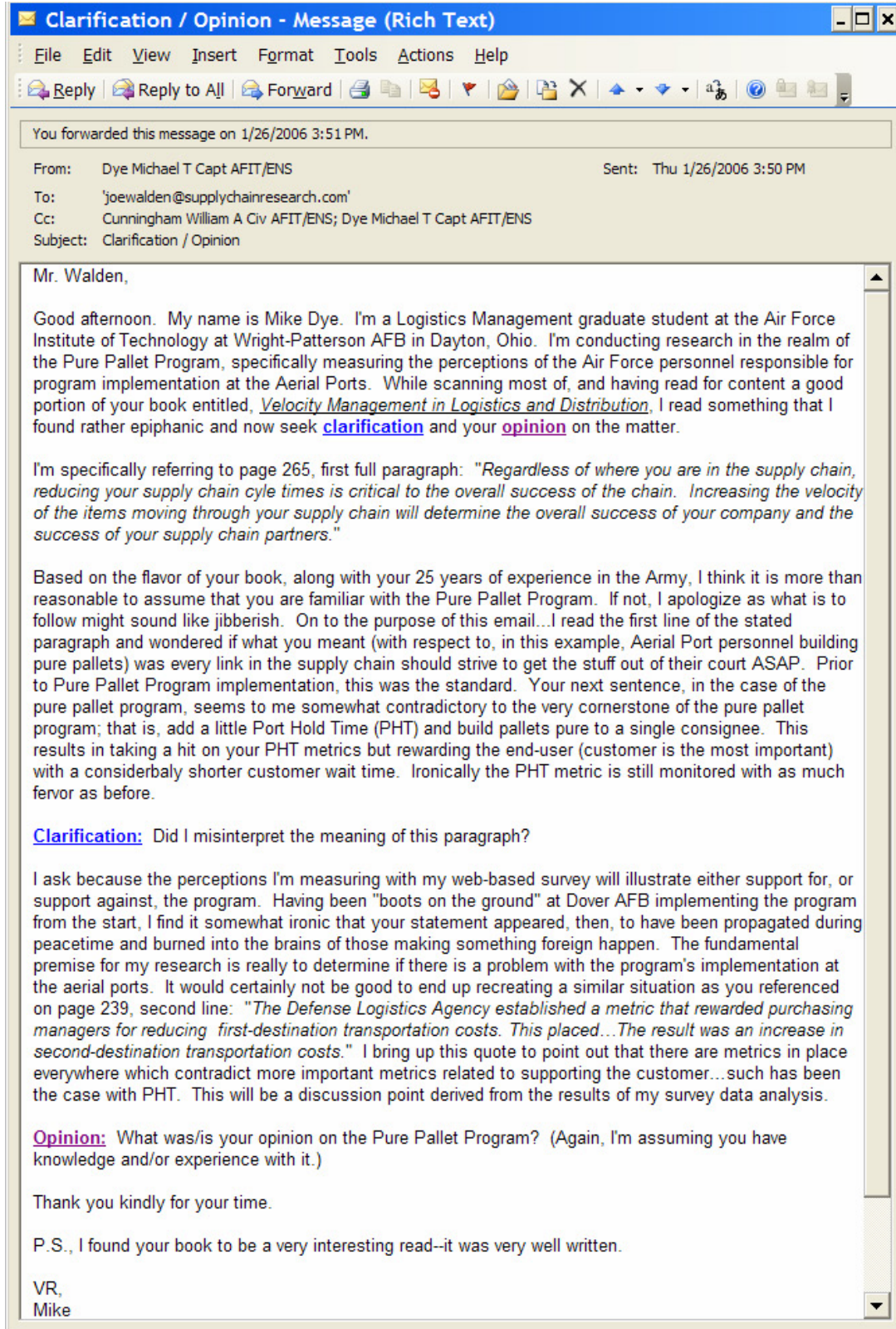
Upon completion of this research, the pure pallet program with which Air Force personnel are familiar will be roughly two years old. The perceptions measured for this research effort represent only a snapshot in time. One must remember that the personnel who volunteered to participate in the survey are not necessarily the same as those who experienced initial program implementation. The reverse is also true; those personnel who happened to be involved in the program’s initial implementation may not have been since involved (due to retirement, reassigned to a location not involved in the pure pallet program, etc.)

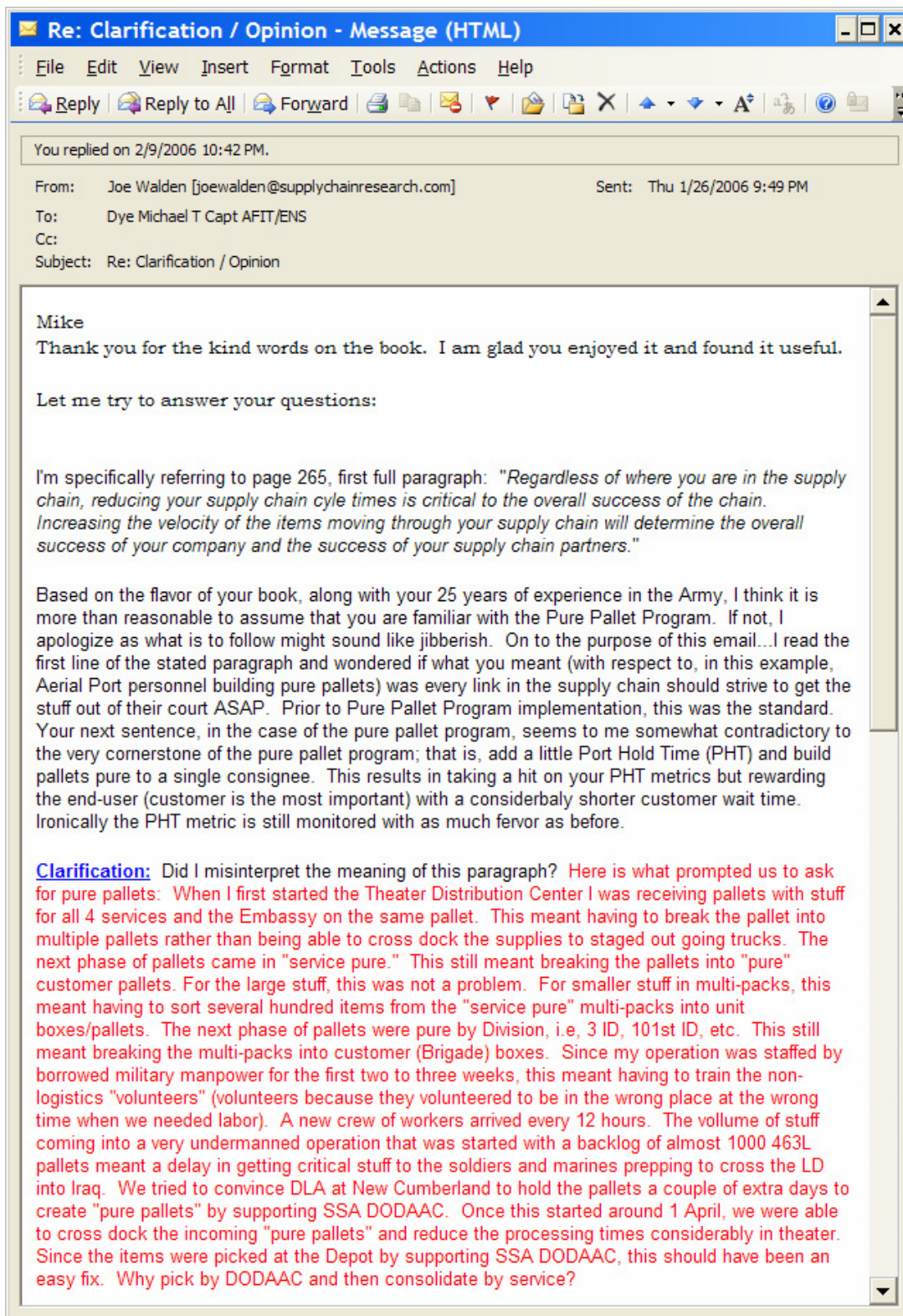
Those respondents who actually elected to participate in the survey may not have had experience building pallets prior to program implementation to even perceive a difference of any kind—good, bad, or indifferent. Though the survey was developed to mitigate this inevitability, it is impossible to quantify the effect of this inherent limitation. Furthermore, the survey data were collected with an element of human behavior naturally exhibiting some degree of variability. This is simply the nature of behavioral research data and should be kept in mind. The same survey administered one year, two years, or five years from now may very well each yield significantly different results. While considered a limitation on one hand, on the other the potential insight gained from a reusable and flexible assessment tool may be considered by pure pallet program managers and future researchers to be quite beneficial.

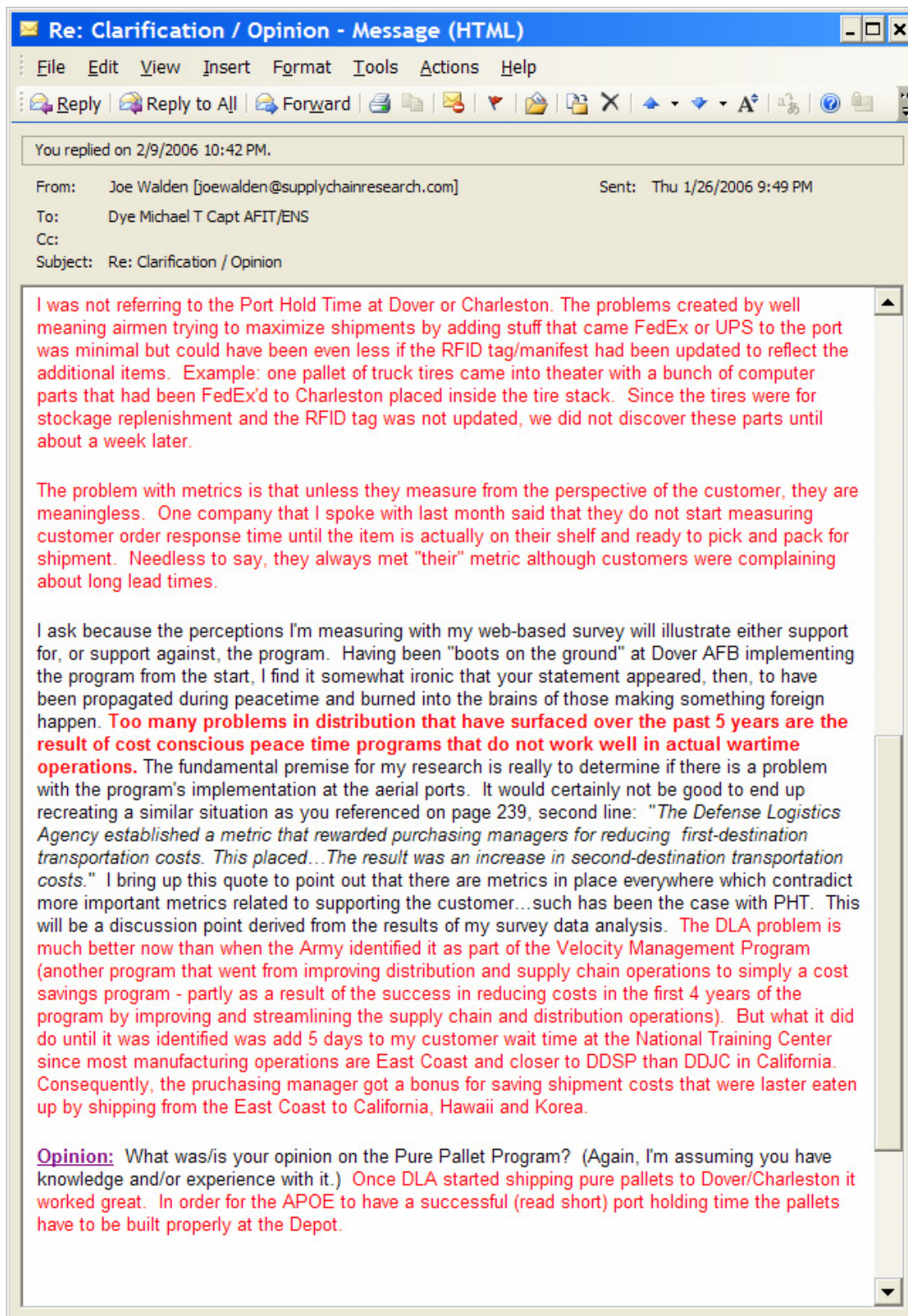
Summary

This chapter presented the major conclusions drawn from the results and analysis of this research effort. The results indicate that the pure pallet program is working as intended but that there is a perception problem among personnel involved with pure pallet program implementation within the Air Force. The author recommends educating all air transportation specialists and logistics readiness officers in all Air Force components about the suboptimization avoidance in general and the pure pallet program in particular. The author also made recommendations for future research and discussed the limitations of this research effort.

Appendix A. Correspondence with Colonel Joseph L. Walden, (USA, Ret.)







Appendix B. Survey Screen Shots



Survey Control Number:USAF SCN 06-001

Privacy Notice

The following information is provided as required by the Privacy Act of 1974:

Purpose: The purpose of this survey is to determine how well the new "pure pallet" program is working by obtaining the perceptions of those personnel responsible for program implementation.

Routine Use: The survey results will be used to clarify what aspects of the pure pallet program are working well and which ones are not, as well as to make recommendations to further enhance logistics support to the deployed warfighter. A final report will be provided to the sponsor of this survey, the Air Transportation Division of Headquarters Air Mobility Command's Logistics Directorate (A43). Individual written responses and/or recommendations only may be disclosed for specific feedback to pure pallet program managers. However, there will be absolutely no way to even vaguely determine who provided comments and/or recommendations. No personally identifiable information is requested so all responses to this survey will be completely **ANONYMOUS**.

Participation: Participation is **VOLUNTARY**. No adverse action will be taken against any member who does not participate in this survey or who does not complete any part of the survey.

Instructions

- Base your answers on your own thoughts & experiences
- Please be thorough when asked to answer in a response or when providing comments
- Be sure to select the correct option button when asked because when you move on you cannot come back
- Please finish the entire survey once you begin since you cannot log off and come back to finish later

Contact information: If you have any questions or comments about the survey, please contact Captain Michael T. Dye, AFIT/ENS at the number, fax, mailing address, or e-mail address listed below.

Michael T. Dye, Captain, USAF
AFIT/ENS
Department of Operational Sciences
2950 Hobson Way
Wright-Patterson AFB OH 45433-7765
Email: michael.dye@afit.edu
Phone: commercial (937) 255-6565, ext. 4283
Fax: commercial (937) 656-4943

[Start Survey](#)

Notice and Consent Banner:

Use of this DoD computer system, authorized or unauthorized, constitutes consent to monitoring of this system. Unauthorized use may subject you to criminal prosecution. Evidence of unauthorized use collected during monitoring may be used for administrative, criminal, or other adverse action. Use of this system constitutes consent to monitoring for these purposes.

Read the [Privacy and Security Notice](#)

Section I: Demographics

1. Age (Years)
2. Gender
☒ Male ☐ Female
3. Rank
4. Component:
5. Air Force Specialty Code (Example: 21R, 2T2X1, etc.)
6. Total Time in Service
 Years Months

[Continue](#)

Section I: Demographics (Continued)

7. Since January of 2004, are you currently, or have you ever been, permanently or temporarily assigned to any of the following locations? (Select all that apply and indicate the total length of time spent at each location since January 2004):

<input type="radio"/> Yes, to the following			
<input type="checkbox"/> Charleston Aerial Port Squadron, SC	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Dover Aerial Port Squadron, DE	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Ramstein Air Mobility Squadron, Germany	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Kuwait International Airport, Kuwait	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Al Udeid, Qatar	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Tikrit, Iraq	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Baqubah, Iraq	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Baghdad International Airport, Iraq	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Balad, Iraq	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Mosul, Iraq	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Tallil (Ali), Iraq	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Al Asad, Iraq	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Karshi-Khanabad, Uzbekistan	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Bagram, Afghanistan	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Kandahar, Afghanistan	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="checkbox"/> Djibouti, Djibouti	Years	<input type="text" value="0"/>	Months <input type="text" value="0"/>
<input type="radio"/> No, I have never been permanently or temporarily assigned to any of the above locations.			

8. Have you had exposure to, or worked with, the pure pallet program to include building, load planning, loading, or overseeing pure pallet program activities?

YES ☐ NO ☐

[Continue](#)

Section I: Demographics (Continued)

9. At what functional level and for how long have you had exposure and work experience with the pure pallet program? (Select all that apply and indicate the total length of time of exposure / work experience at each location):

<input type="checkbox"/>	Aerial Port Squadron	YEARS	0	MONTHS	0
<input type="checkbox"/>	Air Mobility Squadron	YEARS	0	MONTHS	0
<input type="checkbox"/>	Headquarters	YEARS	0	MONTHS	0
<input type="checkbox"/>	Air Operations Center	YEARS	0	MONTHS	0
<input type="checkbox"/>	CDDOC	YEARS	0	MONTHS	0
<input type="checkbox"/>	Forward Deployed Location	YEARS	0	MONTHS	0
<input type="checkbox"/>	Other	YEARS	0	MONTHS	0

[Next Section](#)

Section II: Survey Questions

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree

1. I am familiar with the goals of the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. The pure pallet program is a good concept.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Less cargo is lost in the distribution pipeline under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. My supervisor supports the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. The pure pallet program has increased overall congestion in the distribution pipeline.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Standards under the pure pallet program are clearly defined.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Continue](#)

Section II: Survey Questions (continued)

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree

7. Pallets move through the distribution pipeline faster under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. Standards under the pure pallet program are attainable.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. More time is required to actually build pallets under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. The pure pallet program reduces the total time required to deliver cargo to the warfighter.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. I am willing to put in a great deal of effort beyond that normally expected in order to help make my unit be successful.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. I "talk up" my unit to my friends as a great organization to work for.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continue

Section II: Survey Questions (Continued)

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree

13. I find that my values and my unit's values are very similar.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. For me, my unit is the best of all possible organizations to work for.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. I received adequate training for pure pallet program implementation.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

16. My unit has the necessary resources to implement the pure pallet program effectively.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17. More pallets, nets, and tie-down equipment are required for the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

18. Port-hold-time (PHT) has increased under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continue

Section II: Survey Questions

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree

19. Aircraft utilization has decreased under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

20. My unit is more efficient under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

21. Duplicate ordering has decreased under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. The pure pallet program increased manpower requirements.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. My supervisor feels the pure pallet program is important.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. Standards under the pure pallet program are reasonable.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continue

Section II: Survey Questions (Continued)

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree

25. The pure pallet program is working as it was intended.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

26. Cargo backlog has increased under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

27. Moving pallets within the CENTCOM AOR is easier due to the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. My job is easier with the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

29. The pure pallet program has benefited my unit's operations.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

30. My supervisor asks me for feedback regarding the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Continue](#)

Section II: Survey Questions

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree

31. I feel that mostly everyone in my unit is adequately familiar with the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

32. Pallet utilization has decreased under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

33. My supervisor provides good feedback to me regarding the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

34. More equipment is needed under the pure pallet program.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

35. The pure pallet program has made my job harder.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

36. I think the pure pallet program is beneficial to the warfighter

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continue

Section II: Survey Questions (Continued)

1	2	3	4	5	6	7
Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree

37. The pure pallet program is more costly to implement.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

38. The pure pallet program works as it was initially described to me.

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

39. I see ways in which the pure pallet program could be improved

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

40. I am very familiar with the pure pallet program

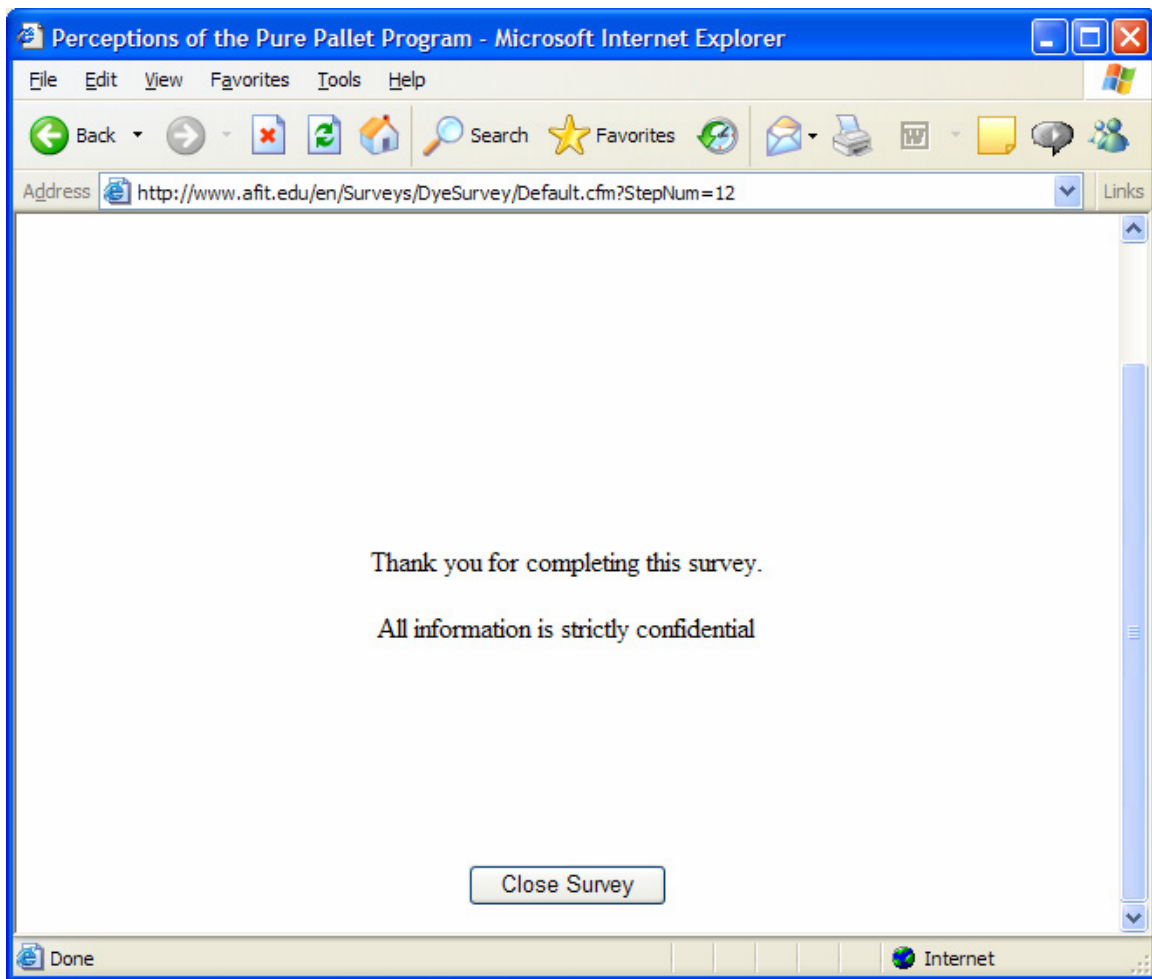
1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

41. I think the pure pallet program should be abandoned

1	2	3	4	5	6	7
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

42. What recommendations (if any) do you have for improving the pure pallet program? Please be as specific as possible

[Finish](#)



Appendix C: Human Subjects Exemption and Survey Approval Letters

Internal Review Board (IRB) Request for Exemption Letter #1



DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY (AETC)

AFITCAFF#2000-000
Sent to AFRL 28 OCT05
via email

28 Oct 05

MEMORANDUM FOR AFIT/ENS
AFIT/ENR
AFRL/HEH
IN TURN

FROM: AFIT/ENS/GLM

SUBJECT: Request for Exemption from Human Experimentation Requirements (AFI 40-402):
Thesis Research, AFIT/ENS/GLM, Perceptions of the Pure Pallet Program.

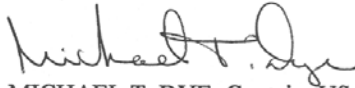
1. Request exemption from Human Experimentation Requirements of AFI 40-402 for the proposed Perceptions of the Pure Pallet Program (attached) to be conducted in conjunction with thesis research at the Air Force Institute of Technology. Purpose of this study is to determine how well the new "pure pallet" program is working. The results of this study will be used to clarify what aspects of the pure pallet program are working well and which ones are not, as well as to make recommendations to further enhance logistics support to the deployed warfighter.
2. This request is based on the Code of Federal Regulations, title 32, part 219, section 101, paragraph (b) (2); Research activities that involve human subjects will be exempt when the research involves the use of survey procedures provided (i) information obtained cannot be directly or through identifiers linked to the subjects, and (ii) disclosure of subjects' responses does not place the subjects at risk of criminal or civil liability, financial strain, employability or reputation ruin. Methodology used to collect information for pure pallet program research is based on survey procedures. The following information is provided to show cause for such an exemption:
 - 2.1. Equipment and facilities: No special equipment or facilities will be used.
 - 2.2. Subjects: Subjects will be all available air transportation specialists and logistics readiness officers in all components of the United States Air Force, as well as those few DoD civilians who build up and manage pure pallets at the only Defense Logistics Agency depot (located in Susquehanna, PA) who is participating in the pure pallet program.
 - 2.3. Timeframe: Data will be collected from November to December 2005.
 - 2.4. Description of the survey: The survey will be web-based. It will primarily use a 5-point Likert scale for measurements. The survey will ask questions relating to perceptions of the pure pallet program as well as very limited demographic information.
 - 2.5. Data collected: No identifying information is obtained through the survey. Data collected on individual subjects include respondents' perceptions of the pure pallet

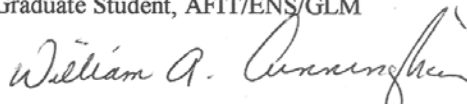
program's benefits, performance measures, efficiency, and effectiveness. Other questions are related to the subject's organizational commitment and perceived organizational support for the pure pallet program. Limited demographic information will also be collected in the first part of the survey, only to distinguish which subjects have a thorough working knowledge of the pure pallet program. Those subjects who report having no knowledge of the pure pallet program will be directed to a screen which thanks them kindly for their time and participation. Those arriving at the end of the survey are provided an opportunity to provide comments on and/or suggestions for improving the pure pallet program. All subjects will again be reminded of their complete anonymity as no identifying information will be collected at any time during the survey process. The data collected will be reported collectively in aggregate form.

2.6. Informed consent: All subjects are self-selected to volunteer to participate in the survey. No adverse action is taken against those who choose not to participate. Subjects are made aware of the nature and purpose of the research, sponsors of the research, and disposition of the survey results. A copy of the Privacy Act Statement of 1974 is presented for their review.

2.7. Risks to Subjects: Individual responses of the subjects' written comments and/or recommendations only may be disclosed for specific feedback to pure pallet program managers. However, there will be absolutely no way to determine who provided comments and/or recommendations. This eliminates any risks to the subjects as noted in paragraph 2 while simultaneously providing meaningful feedback. There are no anticipated medical risks associated with this study.

3. If you have any questions about this request, please contact Dr. William A. Cunningham (primary investigator) – Phone (937) 255-6565, x.4283; E-mail – william.cunningham@afit.edu or Captain Michael T. Dye - Phone (302) 399-1542; E-mail – michael.dye@afit.edu.


MICHAEL T. DYE, Captain, USAF
Graduate Student, AFIT/ENS/GLM


WILLIAM A. CUNNINGHAM, AD-24, DAF
Faculty Advisor, AFIT/ENS/GLM

Attachment:
Perceptions of the Pure Pallet Program

Internal Review Board (IRB) Request for Exemption Letter #2



DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY (AETC)

2006-0006
approved

3 Nov 05

MEMORANDUM FOR AFIT/ENS
AFIT/ENR
AFRL/HEH
IN TURN

FROM: AFIT/ENS/GLM

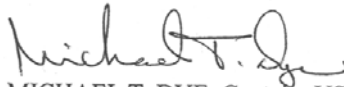
SUBJECT: Amendment to Human Subject Review case F-WR-2005-0005-E: Thesis Research, AFIT/ENS/GLM, Perceptions of the Pure Pallet Program Survey

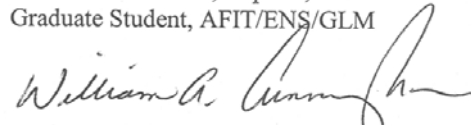
1. Request approval of amendment to Human Subject Review case F-WR-2005-0005-E: Thesis Research, AFIT/ENS/GLM, Perceptions of the Pure Pallet Program Survey. Therefore, please amend by removing the attachment submitted originally on 28 Oct 05 and replace with the survey attached, which is a revision of the original.
2. During the coordination process with the Defense Distribution Center (DDC), it was brought to my attention that the DoD civilians responsible for building pallets at the Depot in Susquehanna, PA do so with no knowledge of the "pure pallet" program. Though they technically build "pure pallets" according to the CENTCOM route plan (document outlining which units' supplies should be consolidated to a particular location), their in-house procedures did not call for any changes to their existing rules of engagement for building pallets. In effect, the "new" pure pallet program is nothing "new" to them at all. Surveying this population would not yield significant information and will, more importantly, waste their time.
3. Eliminating the DoD civilians at the Defense Depot—Susquehanna, Pennsylvania from the sample population necessitated the following specific changes to the original version of the survey:
 - a. Item 3: The list of possible grades was updated by deleting all DoD civilian grades.
 - b. Item 4: "DoD Civilian" deleted.
 - c. Item 5: "...or DoD Civilian Service Equivalent" deleted.
 - d. Item 6: "...or DoD Civilian Service" deleted.
 - e. Item 10: "Defense Depot—Susquehanna, PA" deleted from list.
 - f. Item 11(b): Entire item deleted. Branching function of the web-based survey is no longer required.
 - g. Item 12: "Defense Depot—Susquehanna, PA" deleted from list.
4. Also, during the initial review of my original proposal, it was brought to my attention that *"As proposed, this study does not meet the criteria for exemption for the following reasons:*

1. *The subjects answers may have a potential adverse effect on their employability (military career) if disclosed.*
2. *There are several questions in the demographic data section that could allow identification of subjects in combination with the other data collected:*
 - #7 - current unit
 - #9 - current base"

After consulting with my thesis advisor, Dr. Cunningham, these items were deemed as not absolutely critical to the validity of this study. To that end, the attached survey also reflects the deletion of Items 7 thru 9. (Though not specifically cited above, Item 8 was also deleted for relevancy.)

5. If you have any questions about this amendment request, please contact Dr. William A. Cunningham (primary investigator) – Phone (937) 255-6565, x.4283; E-mail – william.cunningham@afit.edu or Captain Michael T. Dye - Phone (302) 399-1542; E-mail – michael.dye@afit.edu.


MICHAEL T. DYE, Captain, USAF
Graduate Student, AFIT/ENS/GLM


WILLIAM A. CUNNINGHAM, AB-24, DAF
Faculty Advisor, AFIT/ENS/GLM

Attachment:
Perceptions of the Pure Pallet Program

Internal Review Board (IRB) Exemption Approval Letter



DEPARTMENT OF THE AIR FORCE
AIR FORCE MATERIEL COMMAND
WRIGHT-PATTERSON AIR FORCE BASE OHIO

2006-006


07 November 2005

MEMORANDUM FOR: Michael Dye, Capt, USAF
AFIT/ENS/GLM

FROM: AFRL/Wright Site Institutional Review Board

SUBJECT: Request for exemption from human experimentation requirements

1. Protocol title: Perceptions of the Pure Pallet Program
2. Protocol number: F-WR-2006-0005-E
3. The above protocol has been reviewed by the AFRL Wright Site IRB and determined to be **exempt** from IRB oversight and human subject research requirements per 32 CFR 219.101(b)(2) which exempts "research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior."
4. Data collection for this study can begin immediately. The IRB must be notified if there is any change to the design or procedures of the research to be conducted. Otherwise, no further action is required.
5. For questions or concerns, please contact your IRB administrator, Helen Jennings at (937) 255-0311 x232 or helen.jennings@wpafb.af.mil OR Lt. Douglas Grafel at douglas.grafel@wpafb.af.mil. All inquiries and correspondence concerning this protocol should include the protocol number and name of the primary investigator.


JEFFREY BIDINGER, Maj, USAF, MC, FS
Chair, AFRL/Wright Site IRB

AFPC Survey Control Number (SCN) Request Letter #1



DEPARTMENT OF THE AIR FORCE AIR UNIVERSITY (AETC)

28 Oct 05

MEMORANDUM FOR AFPC/DPSAS

FROM: AFIT/ENS

SUBJECT: Request for Survey Control Number for Perceptions of the Pure Pallet Program Survey

1. Please consider this letter as a formal request for a survey control number. As part of my graduate degree thesis I would like to conduct a web-based survey. The tentative administration date for the survey is November to December 2005.

2. Pursuant to AFI 36-2601, paragraph 2, the following information is provided:

2.1 State the purpose and justification for the proposed research (include name of AF sponsor and how agency will benefit from the survey findings): The Global War on Terrorism necessitated an evolution in traditional logistics operations and the way our deployed warfighters are sustained. In response to some unique challenges in support of Operations ENDURING FREEDOM and IRAQI FREEDOM, the "pure pallet" program was implemented in January of 2004. The purpose of this study is to determine how well the new pure pallet program is working by obtaining the perceptions of those personnel responsible for program implementation. Sponsorship of this survey is provided by HQ AMC/A43, Colonel Tanya Brickhouse and Lieutenant Colonel Stephen AuBuchon.

2.2 Indicate how you will use the survey results: The results of this study will be utilized by AMC/A43 to gauge the success of the program and form the basis for continuous process improvement while ensuring the best possible logistics support is provided to the warfighter. The results will also enable successful completion of my thesis research effort, which serves as partial fulfillment for graduation from the Air Force Institute of Technology with a masters degree in Logistics Management in March 2006.

2.3. Provide a POC with phone number: If you have any questions about this request, please contact my Faculty Advisor, Dr. William A. Cunningham – DSN 255-6565 x4283; E-mail – william.cunningham@afit.edu or myself, Captain Michael T. Dye – COMM (302) 399-1542, E-mail – michael.dye@afit.edu.

2.4. Identify which population is of interest, how large the proposed sample size is, and how the sample will be selected: Subjects selected will include all members of the air transportation career field (2T2X1) and logistics readiness officer career field (21RX) from all components of the United States Air Force. A few DoD civilian employees at the Defense Depot Susquehanna, Pennsylvania (DDSP), who are involved with the pure pallet program under the direction of the Defense Distribution Center (DDC), will also be selected. All responses will be

completely voluntary. The approximate number of personnel contacted will be 19,500. This includes approximately 14,457 personnel in the air transportation career field; approximately 4,972 personnel in the logistics readiness officer career field; and approximately 75 personnel at the Defense Depot in Susquehanna, Pennsylvania.

2.5 Tell how you expect to collect the data, such as computer-administered survey, mail-out survey, etc.: Data will be collected using a web-based survey housed at the Air Force Institute of Technology (and therefore accessible only by me).

2.6 Provide a copy of the proposed data collection instrument: please see attachment.

2.7. Specify when and how often people will be surveyed: Respondents will only be surveyed once, the period of which is tentatively scheduled for mid-November to mid-December.

3. If you have any questions about this request, please contact me directly at (302) 399-1542 or via e-mail at michael.dye@afit.edu. Your assistance in this matter is greatly appreciated.



MICHAEL T. DYE, Capt, USAF
Graduate Student, AFIT/ENS/GLM

Attachment:
Perceptions of the Pure Pallet Program

AFPC Survey Control Number (SCN) Request Letter #2



DEPARTMENT OF THE AIR FORCE AIR UNIVERSITY (AETC)

3 Nov 05

MEMORANDUM FOR AFPC/DPSAS

FROM: AFIT/ENS

SUBJECT: Amendment to 28 Oct 05 Request for Survey Control Number for Perceptions of the Pure Pallet Program Survey

1. Please amend previous request by removing the attachment submitted originally on 28 Oct 05 and replace with the survey attached, which is a revision of the original.

2. During the coordination process with the Defense Distribution Center (DDC), it was brought to my attention that the DoD civilians responsible for building pallets at the Depot in Susquehanna, PA do so with no knowledge of the "pure pallet" program. Though they technically build "pure pallets" according to the CENTCOM route plan (document outlining which units' supplies should be consolidated to a particular location), their in-house procedures did not call for any changes to their existing rules of engagement for building pallets. In effect, the "new" pure pallet program is nothing "new" to them at all. Surveying this population would not yield significant information and will, more importantly, waste their time.

3. Eliminating the DoD civilians at the Defense Depot—Susquehanna, Pennsylvania from the sample population necessitated the following specific changes to the original version of the survey:

- a. Item 3: The list of possible grades was updated by deleting all DoD civilian grades.
- b. Item 4: "DoD Civilian" deleted.
- c. Item 5: "...or DoD Civilian Service Equivalent" deleted.
- d. Item 6: "...or DoD Civilian Service" deleted.
- e. Item 10: "Defense Depot—Susquehanna, PA" deleted from list.
- f. Item 11(b): Entire item deleted. Branching function of the web-based survey is no longer required.
- g. Item 12: "Defense Depot—Susquehanna, PA" deleted from list.

4. Also, during the initial review of my original proposal, it was brought to my attention that "As proposed, this study does not meet the criteria for exemption for the following reasons:

1. *The subjects answers may have a potential adverse effect on their employability (military career) if disclosed.*
2. *There are several questions in the demographic data section that could allow identification of subjects in combination with the other data collected:*
 - #7 - current unit

- #9 - *current base*"

After consulting with my thesis advisor, Dr. Cunningham, these items were deemed as not absolutely critical to the validity of this study. To that end, the attached survey also reflects the deletion of Items 7 thru 9. (Though not specifically cited above, Item 8 was also deleted for relevancy.)

5. If you have any questions about this amendment request, please contact me directly at (302) 399-1542 or via e-mail at michael.dye@afit.edu. Your assistance in this matter is greatly appreciated



MICHAEL T. DYE, Capt, USAF
Graduate Student, AFIT/ENS/GLM

Attachment:
Perceptions of the Pure Pallet Program

AFPC Survey Control Number (SCN) Request Letter #2



DEPARTMENT OF THE AIR FORCE AIR UNIVERSITY (AETC)

3 Nov 05

MEMORANDUM FOR AFPC/DPSAS

FROM: AFIT/ENS

SUBJECT: Amendment to 28 Oct 05 Request for Survey Control Number for Perceptions of the Pure Pallet Program Survey

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 - a. Item 3: The list of possible grades was updated by deleting all DoD civilian grades.
 - b. Item 4: "DoD Civilian" deleted.
 - c. Item 5: "...or DoD Civilian Service Equivalent" deleted.
 - d. Item 6: "...or DoD Civilian Service" deleted.
 - e. Item 10: "Defense Depot—Susquehanna, PA" deleted from list.
 - f. Item 11(b): Entire item deleted. Branching function of the web-based survey is no longer required.
 - g. Item 12: "Defense Depot—Susquehanna, PA" deleted from list.
4. Also, during the initial review of my original proposal, it was brought to my attention that "*As proposed, this study does not meet the criteria for exemption for the following reasons:*"
 1. *The subjects answers may have a potential adverse effect on their employability (military career) if disclosed.*
 2. *There are several questions in the demographic data section that could allow identification of subjects in combination with the other data collected:*
 - #7 - current unit

- #9 - *current base*"

After consulting with my thesis advisor, Dr. Cunningham, these items were deemed as not absolutely critical to the validity of this study. To that end, the attached survey also reflects the deletion of Items 7 thru 9. (Though not specifically cited above, Item 8 was also deleted for relevancy.)

5. If you have any questions about this amendment request, please contact me directly at (302) 399-1542 or via e-mail at michael.dye@afit.edu. Your assistance in this matter is greatly appreciated



MICHAEL T. DYE, Capt, USAF
Graduate Student, AFIT/ENS/GLM

Attachment:
Perceptions of the Pure Pallet Program

AFPC Survey Control Number (SCN) Approval Letter



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS AIR FORCE PERSONNEL CENTER
RANDOLPH AIR FORCE BASE TEXAS

5 JANUARY 2006

MEMORANDUM FOR CAPT MICHAEL DYE

FROM: AFPC/DPAPS

SUBJECT: Request for Survey Approval

We have reviewed your request to conduct the Perceptions of the Pure Pallet Program Survey and approved its use with Logistic officers (21RX) and Air Transportation (2T2X1) personnel. We have assigned a Survey Control Number (SCN) of USAF SCN 06-001; valid through 30 June 2006. Please ensure that the SCN and expiration date appear within the survey, survey instructions and appropriate web site as well as on the initial document/e-mail introducing the survey.

With regard to the survey and its associated results, it is important to draw your attention to the provisions of the Freedom of Information Act (FOIA). Under the FOIA, the public can request the results of your survey. Furthermore, if the results will be released outside the Air Force, please follow proper approval procedures through Public Affairs before the results are released.

Questions or concerns can be directed to me at DSN 665-2448. We wish you much success with your data collection effort.

//Signed//

LOUIS M. DATKO
Chief, Air Force Survey Program

Appendix D: Responses to Open-Ended Question

An appendix containing 117 pages of open-ended comments may seem ludicrous to some. Yet, these comments were self-initiated by 2T2s and 21Rs who felt they had something to say. A central theme in any process improvement effort is the need to know the perceptions of the people actually performing the process. For whatever reason, if the people performing the process do not agree with what they are doing, or are not otherwise on board, successful implementation of the process change will arguably be low. There is likely no other source where anyone can find as complete a collection of comments as is presented here, and these comments cover the full range of attitudes toward the specific pure pallet program process improvement initiative.

It is important to note that this is not a random sample. The individuals who responded to these questions were self-selected. It is reasonable to expect that some bias was introduced. On the other hand, these individuals felt strongly enough to voice their opinions. There are lessons here for anyone motivated to improve the way the Air Force air cargo transportation community conducts its business, as well as any distribution entity for that matter.

The responses to the open-ended question (Part II, Item 42) are presented by case number (chronological order). The case numbers do not identify respondents; they were intended to allow these open-ended responses to be compared with and easily referenced to the responses collected by future researchers. The respondents' component assignment (Active, Guard, or Reserve), Rank, AFSC, and Time in Service (TIS) are provided to better inform the reader of the experiences from which these comments were made. To

that end, the time spent at locations considered to be involved with the pure pallet program (Part I, Item 7) and time spent involved with the pure pallet program at various functions (Part I, Item 9) are provided as well.

Comments with any identifying personal information were edited appropriately. All comments are otherwise free from alteration and provided as submitted to this researcher through the WebSIRS program, except where specifically noted, and are *not* necessarily free from natural grammar and spelling errors.

Case #:	54
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	10.08
Time at PPP (Months):	24.00
Time at APS (Months):	0.00
Time at AMS (Months):	96.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	12.00

Recommended Improvements:

I think pure pallets are a good idea if there is enough cargo to do so. I do not think it is a good idea to send a pallet in this matter...example DOV-RMS with only RMS cargo on the pallet when there is AVB or MHZ cargo in the port at DOV.

Case #:	69
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	19.08
Time at PPP (Months):	0.00
Time at APS (Months):	26.00

Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	24.00
Time at Other (Months):	0.00

Recommended Improvements:

ATSEV and other metrics used should be discounted when considering Pure pallets

Case #:	122
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	8.50
Time at PPP (Months):	0.00
Time at APS (Months):	6.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I worked at Charleston AFB, shortly after Dovers building collapsed and the war began. I ran the Cargo floor. Being a small terminal it wasn't easy having all the excess cargo from Dover. As far as the Pure Pallet program I believe its easier to track the cargo but in the warehouse its not as efficient because if you can put two or three destinations on a pallet its easier to build. If you have to build pure pallets you either have to wait til you get enough for a pallet or under utilize the pallet. I am sure its more efficient on the WAR fighting side of the house because they get their supplies faster without having to look thru endless pallets to get what they need. So if thats the intent then its a good program

Case #:	137
Component:	Active
Rank:	O-2
AFSC:	21R
TIS (Years):	3.50
Time at PPP (Months):	24.00
Time at APS (Months):	24.00

Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I think some areas could be combined. The biggest issue with the pure pallet program is the PHT and waste of pallet use. You wait until the last minute with the cargo and then there can be only one item on a pallet. Just need to find more use of pallet and a/c space.

Case #:	150
Component:	Active
Rank:	O-4
AFSC:	Other
TIS (Years):	12.50
Time at PPP (Months):	0.00
Time at APS (Months):	6.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

More education for everyone, not just for the logisticians involved in the program, but concentrated on them.

Case #:	151
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	3.75
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

The Pure Pallet Program helps lessen workload on cargo processing, but the only downfall is that there is less space used on each pallet. The biggest clear program flaw is that you must frustrate the entire pallet if a problem since there is only one TCN.

Case #: 210

Component: Active

Rank: E-5

AFSC: Other

TIS (Years): 7.50

Time at PPP (Months): 0.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

Loss of Pallet utilization and PHT increase are my concerns. Cargo and aircraft utilization is lost as well when you put 3,000 lbs on one pallet and 1500 lbs of cargo on the other, when instead you could combine these pallets and save nets pallets and space. In concept this is great idea, in reality this will hurt productivity and increase costs of airlift and manpower.

Case #: 220

Component: Active

Rank: E-5

AFSC: 2T2

TIS (Years): 9.00

Time at PPP (Months): 0.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 12.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

If the main goal is to get the warfighter the piece quicker, then I think the Pure Pallet program is working. But it is sacrificing aircraft utilization when port hold times are implemented correctly. If the port still holds the shipments past the 72/120 hrs to ensure a reasonable utilization rate, then no, it's not faster. I don't know the total logistics/cost behind this recommendation, but here goes: As far as AMC losing pallet assets to the AOR's, have the unit's provide their own equipment (ISU 90s for example) to the DDC's, where they would have a working knowledge of the current route plans. The DDC would build up the ISU 90s according to the route plans and then send to the ports shipment ready. They currently generate pure pallets anyway, but they tend to get re-worked once arriving the port.(re-weighed, shipment settling, inadequate tie-down, etc.) If the DDC runs into a problem (like the ports) of not enough cargo for certain lanes, send it out on low-profile pallets to the ports, where they can finish building it up with their low volume lanes. Aircraft utilization is more important than truck utilization, and cheaper.

Case #:	232
Component:	Reserve
Rank:	E-5
AFSC:	2T2
TIS (Years):	13.42
Time at PPP (Months):	0.00
Time at APS (Months):	40.00
Time at AMS (Months):	1.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have not heard very much at all about the program at McGuire AFB

Case #:	237
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	2.67
Time at PPP (Months):	1.00
Time at APS (Months):	0.00
Time at AMS (Months):	3.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Utilize the Pure Pallet program ONLY for shipments within or to USCENTCOM APODs (waivering the requirements for 999 MICAP and highest priority cargo). That way, AMC doesn't waste money for normal en routes and CONUS Aerial Ports by increasing the PHT (subsequently causing significant backlog, customer dissatisfaction, and loss of airlift contracts with agencies; losing money), increasing the amount of individual resources needed (Pallets and net sets being sent out 1/2 empty due to failure to utilize complete pallet capabilities), and increase the amount of cargo on hand, causing cargo processors a more challenging job to inventory. I do however, feel the Pure Pallet program is a good idea for the war fighters, and those operating from the USCENTCOM AOR. It reduces personal risk, and time spent on jobs. That's great, but could we minimize the negative impact felt AMC-wide as a result of a broad program. It's like using a cannon to kill a mosquito when we create a new way of processing and transporting cargo to alleviate a moderate personal risk factor toward deployed personnel. But this is all just my opinion. What do I know... I'm just a Senior Airman.

Case #:	257
Component:	Active
Rank:	O-2E
AFSC:	21R
TIS (Years):	14.42
Time at PPP (Months):	3.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	3.00
Time at Other (Months):	0.00

Recommended Improvements:

Changes need to be applied to the culture/thought process - people don't like change.

Case #:	270
Component:	Active
Rank:	E-2
AFSC:	2T2

TIS (Years):	2.00
Time at PPP (Months):	0.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

8 hour shift and lunch breaks

Case #:	277
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	31.17
Time at PPP (Months):	6.00
Time at APS (Months):	20.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	6.00
Time at Other (Months):	0.00

Recommended Improvements:

Since I became aware of the pure pallet program, I have noticed a dramatic decrease in the re-handling and re-constructing pallets. I have to read other material to obtain information on how the Pure Pallet program works and is supposed to work - and then hear contradictory statements from others in my career field. I believe it would benefit everyone if we had a Web Based Training and/or ATSEV program devoted to the PURE pallet program. Supervisors and managers need to be on the same page of music when we work with subordinates on implementing and sustaining the spirit and intent of this program, and right now, differences remain with no clear direction or guidance.

Case #:	313
Component:	Active
Rank:	E-3
AFSC:	2T2
TIS (Years):	1.75

Time at PPP (Months):	0.00
Time at APS (Months):	13.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

It is better to be able to take things out of the bay and put it onto a pallet; than to stop and make sure they baggage or regular cargo and can go together. It is supposed to work to make less braking but it don,t work because the JXX is is a bunch of differnt compeneys so we brake them eneyways.

Case #:	317
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	15.58
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	48.00
Time at HQ (Months):	6.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Distributions centers are required to fully take advantage of the intention of the Pure Pallet Program. Aerial Port/AMSs and TMOs should merge location in order to break pallets and get them distributed to the War Fighter

Case #:	329
Component:	Active
Rank:	O-3E
AFSC:	21R
TIS (Years):	12.58
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00

Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	39.00

Recommended Improvements:

Yes, I do have experience working with parting cargo for deployments but I don't know exactly what the pure pallet program is all about. I know how to load cargo, prepare cargo in the marshalling yard, etc...but I have never heard of the pure pallet program. Unless this is a new concept and has just been developed over the past few years. Even when doing my exportable course work I don't recall reading or testing on pure pallet program.

Case #:	334
Component:	Reserve
Rank:	E-4
AFSC:	2T2
TIS (Years):	2.92
Time at PPP (Months):	0.00
Time at APS (Months):	23.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

What is the pure pallet program?

Case #:	340
Component:	Active
Rank:	O-6
AFSC:	21R
TIS (Years):	26.08
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	24.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	1.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 8.00

Recommended Improvements:

First, it is not clear the intent of this survey. However, the intent of the pure pallet program was to reduce handling, reduce break-bulk requirements, reduce manpower requirements in the AOR. There is a better velocity in the AOR by the increased preparation prior to shipment to the AOR. Are there ways to improve the pure pallet concept is not the correct question, the correct question is are there ways to improve the Logistics Response Time of requisitions to the receipt in the fox hole or flight line. The easy response is Yes if you keep the cargo moving from requisition to receipt. But, the overall answer includes being able to move the cargo quickly with reduced handling and continual break-bulk operations. Pure pallet does this in the AOR with a time cost of preparation before reaching the AOR.

Case #: 350

Component: Active

Rank: E-3

AFSC: 2T2

TIS (Years): 1.67

Time at PPP (Months): 4.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

I don't work in a freight section. At XXX I work fleet services and while deployed I worked in passenger services. Therefore I am completely unfamiliar with the Pure Pallet Program besides what I have read online. I would recommend informing more transportation specialists about the program.

Case #: 366

Component: Active

Rank: E-5

AFSC: 2T2

TIS (Years): 4.58

Time at PPP (Months): 6.00

Time at APS (Months): 0.00

Time at AMS (Months): 4.00

Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	2.00
Time at Other (Months):	0.00

Recommended Improvements:

While I was TDY to Kuwait International Airport (KWI), under the 5 EAMS, I worked as a load planner. I worked in close conjunction with the Theater Distribution Center (TDC) on Camp Arifjan. One the problems I experienced with the pure pallet program was that we would have B747's full of pure, ALOC, and "Do Not Break" pallets that showed the placard destination of KWI but were marked for locations in Iraq. We were instructed that these pallets were to be turned over to the TDC for processing. Myself and a couple otherof the loadplanners conducted a small experiment. We marked certain peices of cargo on some of these pallets in an inconspicuous way before they were turned over to the TDC. The reason we did this was that on a daily basis, we would recieve anywhere from 17-80 pallets from the TDC. Most of these pallets were 2-3 skids, 45 inches tall, and 2500 pounds or less. We wanted to see where this cargo came from. As it turned out, the pallets that we sent the TDC (averaging 6000-8000 pounds apiece) were being broken down and rebuilt as these low-profile, light weight, low cube pallets all destined for air shipment to Balad (they were being called "convoy avoidance" cargo). I fought and fought with the TDC/CC about building bigger pallets but they refused, citing that the pallets they were building were broken down per unit. I checked the shipping documentation on the cargo that we had marked. The cargo on the pallets we recieved from the states (CHS or DOV) were almost always "pure" with all the cargo on each going to the same DODAAC. Yet we were getting the same cargo back from one pallet, that we turned over to the TDC, on an average of 4-6 pallets. Just to give you an example, at one point I was recieving calls from TACC asking why we were only utilizing 36,000 pounds of the ACL on a C-5 (max ACL 150,000). I had to explain that the aircraft in question had 34 pallets on it (all we had for Balad at the time) and that was what we were recieving from the TDC. I would check into this process, if possible, to see if the TDC really needs to be going through all these pallets, rebuilding them on 4 times the assets and taking 4 times the airlift, to get the same amount of cargo downrange.

Case #:	373
Component:	Active
Rank:	O-3E
AFSC:	21R
TIS (Years):	16.50
Time at PPP (Months):	0.00
Time at APS (Months):	29.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	2.00
Time at Other (Months):	0.00

Recommended Improvements:

I really feel our big problem is still trackin cargo. We need a way to recognize where everything we have ordered is located at. Once we fix our tracking it will help priority which will in turn reduce the load on the airlift logistics pipeline

Case #:	404
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	15.33
Time at PPP (Months):	1.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

pure pallet s should be built only for cosignor for the aor

Case #:	411
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	14.00
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	2.00
Time at Other (Months):	0.00

Recommended Improvements:

Establishing a priority of movement for pallets coded 999 and priority one. Example. B-747 arrives with 33 pallets on the upper deck. All 33 pallets are 999, a C-17 is on the deck waiting for an 18 pallet upload. The port uploads the aircraft with 18 pallets and the C-17 departs. On occasion, higher priority cargo on the aircraft is not moved. There needs to be a step higher than 999 to reduce user to port contact trying to locate pallets. Sounds trivial, but very time consuming to get a call from the user trying to locate their "important" pallets.

Case #:	448
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	2.58
Time at PPP (Months):	22.00
Time at APS (Months):	0.00
Time at AMS (Months):	22.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

In the AOR utilizing the pure pallet program we are losing 30-40% of our materials. This is mainly from other organizations. The other organization picks up the pallet and trucks it away. That organization breaks the pallet down and leaves the straps, nets and the pallet on the ground and the mobility squadron never sees it again. When we get our pallets back they are extremely damaged. We have also seen Civil Engineering use our pallets to grade the roads with a 10k AT to level the road. Rarely does tie down ever return back to the original sender.

Case #:	452
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	17.33
Time at PPP (Months):	23.00
Time at APS (Months):	36.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00

Time at Fwd Deployed (Months): 12.00

Time at Other (Months): 0.00

Recommended Improvements:

MAKE THE ARMY BECOME MORE EFFICIENT. GIVE US THE MANNING THAT THE ARMY WOULD USE FOR THE SAME JOB WE PERFORM, OR LET THE AIR FORCE TAKE OVER THE ARMY DISTRIBUTION POINTS WITH HALF THE NUMBER OF MEMBERS THEY USE. DREAM ABOUT IT...NO MORE TDC

Case #: 462

Component: Active

Rank: E-3

AFSC: 2T2

TIS (Years): 1.75

Time at PPP (Months): 0.00

Time at APS (Months): 2.00

Time at AMS (Months): 16.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

I have never heard of the pure pallet program. When is the briefing?

Case #: 467

Component: Active

Rank: O-3

AFSC: 21R

TIS (Years): 8.67

Time at PPP (Months): 12.00

Time at APS (Months): 0.00

Time at AMS (Months): 12.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

My perspective of the PPP was from the trans-load APOD in CENTCOM. We would

download PP from strat air and were able to more effectively move these pallets with reduced port hold times b/c we did not have to breakdown the pallets, sort the cargo for final end destination, process the cargo for those locations, build the cargo back up onto new pallets, forecast the mission, loadplan and manifest on the mission (with a full plane load, i.e., that pallet may have to wait in the backlog if there isn't anything else destined for the final location), then load and launch. Although these are typical Aerial Port processes, locations in CENTCOM are challenged with limited equipment, limited manpower, and, for the period that I was there, more aircraft on the ground than we could handle simultaneously. The priority is to download terminating cargo and clear the ramp of the jets so that Dips, crew days, quiet hours, slot times, etc. didn't delay the aircraft and further congest the ramp and put the port further behind in cargo handling. Cargo processing became a number 2 priority to what was happening on the ramp. The longer cargo processing is delayed, the longer your port hold times on cargo. With PP, virtually no rehandling was involved. We downloaded, re-loadplanned and manifested often full plane loads in less than 12 hours, easily. With the rehandling that mixed pallets required, sometimes it took us up to 24 hours to MAP out the cargo in the system, then hopefully we had a full plane load to justify a requirements-based run or there was a frequency mission already on the books. We very rarely received low-profile PP that created inefficient use of intra-theater jets. When we did, we loaded loose cargo on top of it, annotated the addition on the loadplan, and phoned the downrange ATOC to let them know where those TCNs were. I understand that this may create extra work and some increased port hold times at the APOEs, but realistically, if this work wasn't done there, then we would be doing it in the field where we have less manpower, limited resources, and often more MOG. I'm sure the program could use some fine-tuning to help the APOEs but I cannot offer any suggestions without knowing what the standards are. I never heard of the PPP until we started receiving pallets marked PURE in the field. We thought that they were similar to ALOC pallets but quickly realized the difference when we started receiving full strat air loads marked this way.

Case #:	474
Component:	Active
Rank:	O-2E
AFSC:	21R
TIS (Years):	12.08
Time at PPP (Months):	0.00
Time at APS (Months):	14.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

RFID tag funding AF wide would help in addition to better Hand-held terminals for cargo processing and increased authorizations/funding for MHE. As a thru-put handler, pure pallet means more hands on--breaking pallets down and sorting to achieve pure pallets. With more funding we can obtain necessary cargo management equipment. With the right equipment we can achieve the pure pallet and RFID tag vision.

Case #:	482
Component:	Guard
Rank:	E-7
AFSC:	2T2
TIS (Years):	21.67
Time at PPP (Months):	16.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

There needs to be more communication at the supervisor level between the ports hubs and the AOR. I would be glad to discuss this further I have been on both sides. It is an excellent idea IT DOES SAVE LIVES!!!!!!!!!! I would be glad to communicate further about it.

Case #:	502
Component:	Guard
Rank:	E-5
AFSC:	2T2
TIS (Years):	30.00
Time at PPP (Months):	0.00
Time at APS (Months):	14.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

When part of a shipment is missing the whole pallet is put to the side and goes off to the side, it may continue or may not. It may be delayed or may not. It should never be delayed. The warfighter may need something that is still left on the remainder of the pallet at the time that he is expecting it. We should let the receiver decide not Aerial Port. It is better to receive 9 boxes out of ten then zero. Who the hell are we to decide what the unit on the battle line needs. We forget that they are priority. They get what they need. As the song goes 2 out of 3 ain't bad. But zero is worse. Don't delay the shipment just continue the shipment and make note at what point the item/box was missing. We should use more airlift then have our service members die in convoys. If it requires placing 2T2x1 on the aircraft with a forklift to offload the aircraft at a forward location then so be it. Just like the forklifts on the back of flat bed trucks that are hauling sod/concrete/stone/etc going down the road at construction sites we could do the same. Well so much for my 2 cents. Good luck on your survey.

Case #:	515
Component:	Guard
Rank:	E-4
AFSC:	2T2
TIS (Years):	4.17
Time at PPP (Months):	12.00
Time at APS (Months):	19.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00
Recommended Improvements:	
	more man power needed at charleston afb

Case #:	522
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	4.00
Time at PPP (Months):	28.00
Time at APS (Months):	48.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00

Time at Fwd Deployed (Months): 16.00

Time at Other (Months): 0.00

Recommended Improvements:

I don't know what pure pallet program is. It would be helpful if units have a briefing explaining what pure pallet program is, its advantages and disadvantages.

Case #: 544

Component: Active

Rank: O-3E

AFSC: 21R

TIS (Years): 20.00

Time at PPP (Months): 9.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 24.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 6.00

Time at Other (Months): 12.00

Recommended Improvements:

Pure pallet program will work if the deploying units builds a complete pallet and delivers that pallet to a single location. If the pallet has to be broken down and wait for additional items to fill the pallet, the labor, management and time outweigh the cost benefit.

Case #: 551

Component: Reserve

Rank: E-7

AFSC: 2T2

TIS (Years): 21.25

Time at PPP (Months): 0.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 4.00

Time at Other (Months): 0.00

Recommended Improvements:

I was deployed to XXXXXXXX in 2005 as the Aerial Port Superintendent. The pure

pallet program is a good idea in concept, however, aircraft underutilization and pallet backlog was my biggest frustration. An example. Two pure pallets came in, one weighed 800 lbs, the other weighed 1000 lbs. One contained empty cardboard boxes and the other contained the box tops. They came in on the same truck. Why couldn't they be combined? This is a waste of aircraft. I feel that DDKS and TDC should have held cargo in their possession longer and built larger/heavier pallets which would reduce aircraft underutilization, fuel, labor, MHE and backlog numbers. The increased backlog slowed cargo movement significantly during my tour in Kuwait. I voiced this concern several times to TDC and DDKS but my understanding is that there was a civilian labor contract involved which stated these contract employees had to build a quota of pallets per day. Otherwise, why are we wasting our assets trying to move cargo only to bottleneck the flow at aerial ports?

Case #:	557
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	5.42
Time at PPP (Months):	25.00
Time at APS (Months):	23.00
Time at AMS (Months):	2.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

As a little background, i implemented the Pure Pallet Program at XXX AFB in 2004... i have a lot of knowledge and can still get my hands on a lot fo data if you need it for your project. I also did a LEAN event on the PPP at XXX in May 2005 which i have data on. i am no longer stationed at XXX, but have PCS to XXX. DSN XXX if you have questions. Too many folks get their fingers into this program who do not have an adequate grasp of the initial and primary goals. this is not a "fix all" for every location... but it is a damn good one for the current CENTAF AOR... key word being current. Recommend this be at the forefront before implementation in other areas, such as PACAF. PPP requires a large generation of cargo, otherwise a/c utilization will be extremely low, as well as 463L assets will be diminished. Improvements: 1. First and Foremost!!! Upgrade GATES to actually be used with the PPP... i could go on and on with this topic! 2. Develop an AMC-wide standardized process flow (currently handled differently at all locations) 3. Improve feedback within GTN and GATES during Route Plan changes 4. Implement a help desk at Scott of PPP issues with the systems ... that is, a 24 hours help desk! 5. Streamline the acceptance of cargo at the ports by consolidating the inbound TMO function with the APS function (we were very

successful at XXX after we did this) 6. Get all the Damn Generals and Staff officers who think they need inputs into this program out of it! :) Hope this helps... call or email! Captain XXX

Case #:	559
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	16.75
Time at PPP (Months):	114.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Since most of the pure pallets have been ALOCs some of the questions here are not exactly above-board. The program itself is a fantastic idea that was implemented as needed, but we could've been doing this my whole career. It's not always feasible, but it does make work easier when done properly.

Case #:	560
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	14.33
Time at PPP (Months):	81.00
Time at APS (Months):	81.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Implementing the pure pallet concept is a great idea I really think that it causes significantly increased PHT on certain APODs that don't receive much cargo. What is the purpose of intransit HUBs such as RMS, IUD or FRU if we're building all pallets

pure to the ultimate destination? Utilize the HUBs as they were originally designed and press forward!

Case #:	582
Component:	Active
Rank:	O-2E
AFSC:	21R
TIS (Years):	15.08
Time at PPP (Months):	31.00
Time at APS (Months):	31.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

We should continue to monitor the amount of flow to a consignee. If it's not being properly utilized, then combine the lane with another Pure lane in the same region.

Case #:	596
Component:	Reserve
Rank:	E-8
AFSC:	2T2
TIS (Years):	21.58
Time at PPP (Months):	0.00
Time at APS (Months):	259.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Advertise the program more. I have no knowledge of the program. I don't know what's expected or if my unit is meeting the goals of the program.

Case #:	607
Component:	Active
Rank:	O-3E

AFSC:	21R
TIS (Years):	13.17
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	18.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I worked as a TACC Cargo Bookie in the West Cell. Aircraft were grossly under ACL but, full of pallets averaging about 600LBS (prepacked from DLA) out of SUU and 1500LBS (prepacked from DLA) out of CHS. I feel that port hold times increased and there was no better utilization of pallets, ACLs or TWCF goals due to PP. Before PP, CHS was able to regularly exceed 37 S.T. ACL on C-17s and 90 S.T. on 747s. The problem lies with the Army controlling the MCTs and JMCs and their lack of knowledge on how to process cargo. It is like a water balloon, squeeze it hard and it buldges on the other end. PPTs decreased on the APOD while increasing on the APOE. What is needed is education, enforcement and accountability on the Army side--a few more LROs (Field Grade) would improve the JMCs.

Case #:	645
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	16.42
Time at PPP (Months):	24.00
Time at APS (Months):	21.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

incorporate a GATES checks and balances to alleviate all impure pallets, human error is too great.

Case #:	655
Component:	Active

Rank:	E-4
AFSC:	2T2
TIS (Years):	2.83
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	18.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

make big easy to read labels of consignees to hasten the sorting process. ensure labels are in place on cargo prior to entering the dts.

Case #:	665
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	16.25
Time at PPP (Months):	0.00
Time at APS (Months):	192.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Develope better method to replace damaged materials. Like a maitenance and repleshishment system that would assure quality.

Case #:	689
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	8.00
Time at PPP (Months):	0.00
Time at APS (Months):	0.00

Time at AMS (Months):	96.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I think that we should implement the Pure pallet Program with more carriers and not limit it to certain types of cargo. I believe that it would improve our PHT if most of the cargo coming into us was already palletized. It would only need an inspection to verify that it is airworthy.

Case #:	695
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	15.75
Time at PPP (Months):	0.00
Time at APS (Months):	31.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	7.00

Recommended Improvements:

I feel that more training is needed for the Defense Logistic Agency's who are building pure pallets, to ensure the pallets are being built to Air Force Standards.

Case #:	705
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	19.00
Time at PPP (Months):	6.00
Time at APS (Months):	1.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	4.00
Time at CDDOC (Months):	0.00

Time at Fwd Deployed (Months): 1.00

Time at Other (Months): 0.00

Recommended Improvements:

The pure pallet program does not work. If we rely Army/KBR to deliver cargo to the final destination they will lose it every time. We (AMC) have never had a problem getting the cargo to the fight (AOR) the folks in the AOR are the ones who can't keep from losing the cargo. It's only a Band Aid to a bigger problem.

Case #: 717

Component: Active

Rank: E-3

AFSC: 2T2

TIS (Years): 2.33

Time at PPP (Months): 0.00

Time at APS (Months): 0.00

Time at AMS (Months): 8.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

I think it would be better if the pallets were built to the max hight, i see a lot of pallets that are around 60in to 72in in hight.

Case #: 719

Component: Active

Rank: E-5

AFSC: 2T2

TIS (Years): 7.92

Time at PPP (Months): 92.00

Time at APS (Months): 92.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

GET RID OF IT!!!!!! You are making our job HARDER!

Case #:	730
Component:	Reserve
Rank:	E-5
AFSC:	2T2
TIS (Years):	12.00
Time at PPP (Months):	9.00
Time at APS (Months):	12.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The pallet placard should have a PURE or NON-PURE indicator.

Case #:	733
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	6.25
Time at PPP (Months):	4.00
Time at APS (Months):	0.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	0.00

Recommended Improvements:

The program has greatly helped within CENTCOM AOR. Provide more resources to move pallets intratheater using the program. Also educate units within CENTCOM about the program, many deployed personnel are not familiar with the program unless they have been stationed at a major aerial port.

Case #:	740
Component:	Active
Rank:	E-3
AFSC:	2T2

TIS (Years):	0.83
Time at PPP (Months):	10.00
Time at APS (Months):	0.00
Time at AMS (Months):	10.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

as the pure pallet is good, i think the major downfall on it is that the port hold time is to long, especially for the warfighter

Case #:	754
Component:	Active
Rank:	O-1E
AFSC:	21R
TIS (Years):	13.33
Time at PPP (Months):	12.00
Time at APS (Months):	12.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I've talked with Army Transportation Officers who benefit greatly from the pure pallet system when they are down range. Even if it may decrease pallet utilization and port hold time, if it make the job of those troops who are fighting down range easier - it is worth keeping. This system helps ensure that the correct pallets and cargo get to the right people in the AOR in a more efficient manner. Certainly this survey needs to be directed to those who actually benefit from it (Army etc...) before the AF even considers abolishing it.

Case #:	755
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	3.92

Time at PPP (Months):	24.00
Time at APS (Months):	20.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	8.00
Time at Other (Months):	0.00

Recommended Improvements:

Better for downrange- less confusion as to destination. Although many pallets go out very small due to this, and much of the plane acl is wasted. Makes my job more easily down range, but frustrates me at home station due to the sight of cargo building up and more work in sight for future on top of your shoulders. Either way- good or bad. I would stick with the pure pallet standard.

Case #:	795
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	13.33
Time at PPP (Months):	5.00
Time at APS (Months):	74.00
Time at AMS (Months):	74.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

PHT will be increased waiting for airlift to AOR locations. Reg. Mail Pure Pallets are a plus to decrease lost or misdirected mail and siq serve pieces also. Large quantity pallets(piece count)should always be pure pallet. breaking these type pallets to find one or 2 pieces that might terminate is very time consuming. Loose loading on AC to increase inventory at large bases would help some. I've seen a lot of AC space wasted that could be used for smaller items the rule "if it's not on a pallet it does not go" seems to be the norm.

Case #:	803
Component:	Active
Rank:	E-4
AFSC:	2T2

TIS (Years):	4.67
Time at PPP (Months):	0.00
Time at APS (Months):	2.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	1.00

Recommended Improvements:

the pure pallet program is good if you have the trucks to back it up if you do not the program should be abandoned! It takes 3 min to intrans a pallet and put it on a truck. If not and the pallet has to be broken and the program is a wash and all of the work done by the other bases is for nothing!!!!

Case #:	812
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	8.25
Time at PPP (Months):	24.00
Time at APS (Months):	0.00
Time at AMS (Months):	12.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Please provide your users (builders/breakers) with the tools and lessions needed to utilize this program at the bottom level. At XXX I worked for at least a year with this program and only got the knowledge that if it wasnt all the same consignee we could not move it for (120 hrs for Army and 72 hrs for marines). There were many planes we could have sent the stuff on if we would have been able to send it together. Maybe if we could mix a couple consignees it would make it more practile for us. Or if we were able to split the pallets by pallet covers, then we would be able to get the items down to the warfighter quicker. For now waiting the 120 or 72 hrs so that a pallet can be mixed together seems to be time wasted when our guys/gals need it the most. V/R SSgt XXX, DSN XXX

Case #:	902
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Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	13.25
Time at PPP (Months):	81.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

In order to ensure maximum pallet utilization, the pure pallet program should be flexible enough to allow cargo of different destinations but geographically close locations should occasionally be allowed to be put on the same pallet.

Case #:	904
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	13.75
Time at PPP (Months):	52.00
Time at APS (Months):	30.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	8.00
Time at Other (Months):	0.00

Recommended Improvements:

The pipeline to the AOR is working great, however within the AOR is another story. AMD controls all routes based on cargo backlogs. We have sent many planes out of stations empty because of AMD rules. I suggest going back to the hub and spoke to streamline the flow of cargo within the AOR.

Case #:	907
Component:	Active
Rank:	O-6
AFSC:	21R

TIS (Years):	23.83
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	12.00
Time at AOC (Months):	12.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	48.00

Recommended Improvements:

Another dumb idea developed because we cannot articulate No to the US Army. TRANSCOM has put pilots in critical leadership positions in logistics and trans positions that have no background or experience other than flying cargo planes. they have never built a pallet or experienced the warehouse sorting operations...Dumb Dumb Dumb

Case #:	932
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	17.33
Time at PPP (Months):	0.00
Time at APS (Months):	6.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I really am not familiar with this program.

Case #:	964
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	16.17
Time at PPP (Months):	127.00
Time at APS (Months):	53.00
Time at AMS (Months):	12.00

Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The concern for Pure Pallet Desintations that only have a few small items. Example of 5 pieces, 1 cube each. This is a complete waste of a pallet position. Pallets of this nature are being moved on a daily basis just because Port Hold Time (PHT) hours are exceeding the limit. This is not a cost effective movment and should be reviewed if the channel is required as a pure channel more than what it is now. I would have to reccomend Monthly review. ThanX, TSgt XXX

Case #:	989
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	11.83
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	13.00

Recommended Improvements:

Better communication of goals/intent/procedures of pure pallet program to Army A/DACGs

Case #:	1003
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	24.00
Time at PPP (Months):	105.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	12.00
Time at AOC (Months):	0.00

Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 0.00
Time at Other (Months): 0.00

Recommended Improvements:

Breakbulk pallets in a TDC/RDC in the AOR. This would increase surface node capability to carry more cargo to warfighter. It also reduces dramatically the loss of 463L assets.

Case #: 1004
Component: Reserve
Rank: E-7
AFSC: 2T2
TIS (Years): 35.08
Time at PPP (Months): 5.00
Time at APS (Months): 312.00
Time at AMS (Months): 0.00
Time at HQ (Months): 0.00
Time at AOC (Months): 0.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 0.00
Time at Other (Months): 0.00

Recommended Improvements:

1. I SEE THE ADVANTAGES OF AMC RECIEVING PURE PALLETS FROM CONSOLIDATION POINTS THIS PROCESS DOSE ENTER THE PALLET INTO THE LOADPLANNING PROCESS MUCH QUICKER AND LESS TIME IN INVANTORY. 2. CREATING A PURE PALLET AT THE AMC PORT LOCATION WOULD CAUSE A DELAY DUE TO ACUMULATING CARGO TO BUILD A WORTHY PALLET BEFORE CLOSEING IT OUT. THIS CAUSES A LONGER ON HAND INVANTORY. 3. PURE PALLET SHOULD NOT BE USED WHEN SHIPPING VALID (999) OR GREEN SHEET CARGO THIS SHOULD BE PROCESSED ASAP AND NOT WAIT FOR SAME DODAAC CARGO TO SHOW UP BEFORE LOAD PLANNING. THESE TYPES OF CARGO SHOULD ALSO BE SENT DIRECTLY TO THE PORT WITH THE CHANNEL AND SHIPPED FIFO ACCORDING TO COMMODITY,AND NOT SENT TO A CCP SOME TIMES THE SHIPMENT PASSES THE PORT ON THE WAY TO THE CCP AND THAT'S NOT GOOD PLANNING. 4. FEEL FREE TO E-MAIL XXX, XXX - TRAFFIC MANAGEMENT SECIALIST ALSO USAFR XXX AERIAL PORT SQ. 35 YRS TRANSPORTATION EXP "THANKS FOR TRYING TO MAKE THINGS BETTER FOR THE WAR FIGHTER" MSGT XXX

Case #: 1019
Component: Active

Rank:	E-4
AFSC:	2T2
TIS (Years):	3.75
Time at PPP (Months):	0.00
Time at APS (Months):	12.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The Pure Pallet program is a very efficient program for destinations with high inbound/outbound rates. It saves the warehouse employee time in breaking pallets down and redistributing pieces, because all of the pieces are either terminating or in-transit. At smaller destinations that do not have a high inbound/outbound rate it is harder for them to receive their cargo, because most of the time the bigger ports will wait to build a pallet until there is enough cargo to fully utilize a pallet. They also HAVE to wait until there is an aircraft headed to their destination, which could take days depending on the saturation of the airlift system. Overall I think the program is good, but the redistribution process from BIG ports needs to be tweaked. With the RF tag system, customers want to know why their pieces are sitting in a big port. Sometimes it all comes down to not having an aircraft going to that destination. That would be the area that I would try and improve the most, leveling out the aircraft inbound and outbound of big and small ports. Utilizing the airlift system to get the parts to the people when they need it. Not making a pure pallet wait at one destination, for an aircraft to take it to its destination.

Case #:	1029
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	5.83
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have not dealt with the pure pallet program, so I am unable to give a fair analysis of this program.

Case #:	1042
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	21.00
Time at PPP (Months):	0.00
Time at APS (Months):	1.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Everyone needs to be working on the same page with this program. If the 2T2s building the pallet do not fully understand then the program will faultier.

Case #:	1050
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	9.50
Time at PPP (Months):	19.00
Time at APS (Months):	19.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I was at XXX during the beginning of our involvement in this initiative. It was one of several that we were executing on behalf of HQ AMC and USTRANSCOM (active RFID and IDCs being two others). Every time you add a "non-standard" initiative to the units, management attention increases. The pure pallet program isn't covered in the DTR or AMC Vol 11 of Vol 9, so we had to invent procedures locally to ensure

compliance. Due to low volumes, the standards given to us by HQ AMC were very difficult to meet. We had to "perfect", because we could not get 90% since we didn't do enough pallets. We eventually got enough of the DoDAACS we serviced added to the pure pallet listing so that we could be in compliance. Initially, the OPR for the program in the CONUS didn't know we were shipping the volume of cargo we were to Iraq, and the so we had to do a lot of work to get lanes built that worked for us. My recommendations are to incorporate these procedures into applicable DoD and AF-level guidance at the next re-write, and to ensure that lanes are built that work for the warfighter as well as the ports. Providing feedback from downrange on the success of the program is also helpful. I couldn't answer with certainty if the program was working downrange, since I haven't seen the program from the other end. Building the pallets pure earlier in the process is also good, as started happening with DDSP and some of our other high-volume shippers. Thanks.

Case #:	1052
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	24.50
Time at PPP (Months):	0.00
Time at APS (Months):	25.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I am the Unit Training Manager for the XX APS, XXX. I am very involved in the training program for all of our personnel, and I never received any info regarding the Pure Pallet Program. Perhaps it does not pertain to the AFRES.

Case #:	1059
Component:	Active
Rank:	O-3E
AFSC:	21R
TIS (Years):	15.17
Time at PPP (Months):	2.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	2.00
Time at Other (Months):	0.00

Recommended Improvements:

I was forward deployed to Baghdad and also Manas. We saw pure pallets coming through, but just kept them moving through the system to the final destination.

Case #:	1060
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	14.08
Time at PPP (Months):	46.00
Time at APS (Months):	0.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I think the cargo has to be moved as soon as it gets to the ports, instead of holding it until there is enough cargo for any given consignee. If the cargo moves as soon as it arrives to the ports, the receiver would get it sooner.

Case #:	1075
Component:	Active
Rank:	O-2
AFSC:	21R
TIS (Years):	3.58
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	24.00

Recommended Improvements:

I worked at an Arial Port in ACC that only had a few AMC Flights each month, so I don't have much feedback to give to this survey. One thing that upsets the "sender" about the pure pallet program is that it usually minimizes the amount of cargo we can deploy on one aircraft.

Case #:	1085
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	6.00
Time at PPP (Months):	4.00
Time at APS (Months):	1.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	6.00

Recommended Improvements:

We should try to make as many pure pallets as possible but you should also make mixed pallets to insure max utilization of the aircraft

Case #:	1095
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	4.42
Time at PPP (Months):	13.00
Time at APS (Months):	13.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	3.00
Time at Other (Months):	0.00

Recommended Improvements:

An area to consider is for pure pallets that move to outlying FOBs within the AOR. Once the cargo hits the theater, the Army takes responsibility for its movement and goes through either the Theater Distribution Center or the Corps Distribution Center. Depending on the working relationship with the leadership of these locations, cargo

moves on the first thing smoking or it sits for a couple weeks until there isn't enough cargo to fill a convoy. Additionally, the personnel working with the Theater Distribution Center at Camp Doha have to deal with WWX cargo (as of a year ago) and have to transport it to Ali Al Salem and then arrange movement from there to its destination. While this isn't directly related to pure pallets, surely there is a method to include cargo like this in the packing from the depot. One issue we were having while I was at Charleston is that if there isn't enough cargo to build a pure pallet, the PHT would go up tremendously (in some cases 200+ hours) until there was enough cargo to make a pallet and then it would go into the cargo backlog. While working at the TDC, I would see pure pallets coming from Dover or Charleston that had been placarded a week or two earlier than the day it arrived. If the goal is to get supplies to the warfighter in the shortest possible time, we're failing in this respect. Perhaps the ports can get lists of geographically collocated FOBs and mixed pallets can be built to ensure units are getting what they need in a reasonable amount of time.

Case #:	1103
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	21.50
Time at PPP (Months):	0.00
Time at APS (Months):	48.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	12.00
Time at Other (Months):	0.00

Recommended Improvements:

I thought the Army was utilizing the pure pallet system but they called it ALOC. I was TDY to Balad during the initial build up as a channel msn. CHS would build ARMY pallets and stick one AF piece on the pallet. We would have to break the pallet to find the one piece. Pure pallets are the way to go.

Case #:	1120
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	12.00
Time at PPP (Months):	0.00
Time at APS (Months):	36.00

Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

CONUS TMO / LRS need to move pure pallets to consignee as intended, instead of breaking pallets down into loose cargo and loose loading onto trucks, just to save money. When we incheck a pure pallet, TMOs occasionally have us break the pallets in order to fit more cargo loose onto a truck.

Case #:	1124
Component:	Reserve
Rank:	O-4
AFSC:	21R
TIS (Years):	22.50
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	16.00

Recommended Improvements:

AMC must get fully onboard with the program. Port Hold Time should no longer be the sole metric for Aerial Port Operations Officers. Service to the Warfighter exceeds the benefit of the PHT measure. As a Centcom staff officer, and the lead on the Pure Pallet Initiative within the CENTCOM AOR the program has benefits to the Warfighter beyond the issues of PHT. Aircraft utilization has not dropped below acceptable levels and the program should be expanded beyond the CENTCOM AOR. Times have changed and our customers needs should drive our service levels.

Case #:	1139
Component:	Active
Rank:	O-2E
AFSC:	21R
TIS (Years):	13.83
Time at PPP (Months):	0.00

Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	48.00
Time at Other (Months):	0.00

Recommended Improvements:

I spent 134 days at Manas AB and this topic was never discussed. My folks were from Dover and again this program was not discussed. If there is a hard push then it needs to be advertised. Everyone needs to know about it and understand the intentions.

Case #:	1150
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	22.00
Time at PPP (Months):	0.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Increase Pacific locations serviced via pure pallet.

Case #:	1167
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	5.42
Time at PPP (Months):	4.00
Time at APS (Months):	65.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00

Time at Fwd Deployed (Months): 4.00

Time at Other (Months): 0.00

Recommended Improvements:

I think that there needs to be more training on the pure pallet program

Case #: 1178

Component: Active

Rank: E-6

AFSC: 2T2

TIS (Years): 14.17

Time at PPP (Months): 4.00

Time at APS (Months): 4.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

The intentions of the program were never explained to anyone. The little I do know seems to be a good concept. When in the AOR, I saw pallets being under-utilized cube-wise and frequently, there was no visibility of certain TCNs on these pallets.

Case #: 1206

Component: Active

Rank: E-5

AFSC: 2T2

TIS (Years): 11.42

Time at PPP (Months): 1.00

Time at APS (Months): 0.00

Time at AMS (Months): 6.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

I am currently at XXX AFB. We've had pure pallets coming through here which would make it a lot easier to get cargo to the base. The only problem we are having here is TNO is contracted and they usually do not pick up pure pallets if it is going to different

consignees regardless if its on the base or not. Thier only concern is cargo going to the host unit supply. Maybe a look into thier system would allow us to see more benifits of the pure pallet system.

Case #:	1220
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	4.42
Time at PPP (Months):	44.00
Time at APS (Months):	13.00
Time at AMS (Months):	4.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The 120 Hour PHT limit on Pure consignees sometimes makes it difficult to build full pallets of pure cargo. Often we do not accumulate enough of a certain consignee to require a pallet, but due to the standards, we are forced to waste pallets on the minimal pieces anyway. (2 5lb boxes or a 1lb envelope in a tri-wall, strapped to a pallet for example) I understand that the TCN needs to be palletized and or manifested to stop the PHT from adding up, but there has to be a better way. We need these to be monitored by load planning and manifested as loose cargo if the time limit is reached, but a feasible amount of cargo has not accumulated.

Case #:	1242
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	19.67
Time at PPP (Months):	30.00
Time at APS (Months):	26.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Pallets coming out of CCP need to be 100% airlift able. About 10 percent of the pure pallets have to be fixed by us 2T2, slow down the pallets onward movement. Find ways to decrease light pallet. Meaning, once cargo reached 120 hours no matter one box or two it must be palletized to elevate it going over 120 hr.

Case #:	1244
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	13.92
Time at PPP (Months):	0.00
Time at APS (Months):	24.00
Time at AMS (Months):	96.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	24.00

Recommended Improvements:

The recommendations are to have better equipment given to the units. Trying to implement "pure" pallets with insufficient tiedown is difficult. When these pallets are coming to the "Ports" with BAD nets/warped pallets, it makes everyone's job more difficult. However, if the pallets are good to go, then very simple process. Also, the ports don't have the resources anymore to supply every unit on base. Each unit needs to purchase their "own" pallets/nets. When cargo goes out, the pallets go with, when it comes back, the units must, must, must verify they have their tiedown also...

Case #:	1248
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	17.50
Time at PPP (Months):	4.00
Time at APS (Months):	0.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00

Time at Other (Months): 0.00

Recommended Improvements:

The Pure Pallet program is a good concept except when a unit shifts in the AOR the pallet has to be broken and rebuilt. Not all pieces have TCN's so one could be left guessing. When a pallet is looked at as a pure pallet for war fighters and their is HHG's for personnel PCS's to a location or new furniture for an officier how is that helping the war fighters. Equipment is equipment to help keep the war fighter moving, food, rations ammo, tents, vehicle parts. Sure morale is a positive thing but bumping cargo from a A/C for someones desk and file seems wrong. Taking off up armor for humvees so someone can have chairs? Which one of those might save a life a chair or armor. I think that the pure pallet should have it's limits when the users dictate what is on the pallet. Also the AMD folks should use track and trace in the GATES system to get a pallet ID under the pure pallet and not a TCN that is put in the system because have of the TCN's they pass are messed up.

Case #: 1258
Component: Active
Rank: E-6
AFSC: 2T2
TIS (Years): 19.50
Time at PPP (Months): 159.00
Time at APS (Months): 12.00
Time at AMS (Months): 0.00
Time at HQ (Months): 0.00
Time at AOC (Months): 0.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 12.00
Time at Other (Months): 0.00

Recommended Improvements:

For originating station, the need for straps has increased greatly due to small pallets because of port hold time. We have built 5 lbs boxes on 463L wasting the pallet. The benifit to the hostile area is evident at OR5, but when plts are mis-directed from CHS via ADA to OR5 airlift to correct was hard.

Case #: 1263
Component: Active
Rank: E-6
AFSC: 2T2
TIS (Years): 14.33
Time at PPP (Months): 72.00
Time at APS (Months): 0.00

Time at AMS (Months):	72.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

More education and message traffic concerning the program such as goals, met goals, and outlook.

Case #:	1278
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	10.67
Time at PPP (Months):	31.00
Time at APS (Months):	0.00
Time at AMS (Months):	8.00
Time at HQ (Months):	6.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	16.00

Recommended Improvements:

When using the term "Pure Pallet", I'm not sure I understand if this is a new spin on "Pallets and Nets" as was/is known, so I answered accordingly to the "P/N" program that I am familiar with. If the "Pure Pallet" program is something different, then neither I nor my troops have ever heard about it.

Case #:	1287
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	10.67
Time at PPP (Months):	3.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00

Time at Fwd Deployed (Months): 4.00

Time at Other (Months): 0.00

Recommended Improvements:

We have put too much on the AIR portion of the pure pallet process. The air lines of comm have been established to move cargo from APOE to the Warfighter. More surface mvt needs to happen instead of airlift moving cargo. Especially with limited Airlift assets available to EUCOM and CENTCOM.

Case #: 1308

Component: Active

Rank: O-6

AFSC: 21R

TIS (Years): 25.50

Time at PPP (Months): 0.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 25.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 8.00

Time at Other (Months): 0.00

Recommended Improvements:

I spent 8 months in MultiNational Forces Iraq (Baghdad). The pure pallet program appears to work well to most APODs, however, there are still problems with visibility to the final destination (Army forces do not process their receipts in SARSS) and you still find abuse of 463Ls (including stacks at Arifjan that may or may not be serviceable and may or may not be awaiting immediate use). To get most efficient implementation of the pure pallet initiative, we need to get control of all the nets and pallets.

Case #: 1347

Component: Reserve

Rank: O-4

AFSC: 21R

TIS (Years): 20.42

Time at PPP (Months): 0.00

Time at APS (Months): 12.00

Time at AMS (Months): 24.00

Time at HQ (Months): 24.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 36.00

Time at Other (Months): 0.00

Recommended Improvements:

I don't know where we are and what the "desired" direction is. While the program works in a clean world, I'm uncertain really whether it added value or detracted particularly from what realistically a short deployment phase without a great deal of disruptions.

Case #: 1356

Component: Active

Rank: O-4

AFSC: 21R

TIS (Years): 12.50

Time at PPP (Months): 0.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 15.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 4.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

Apologies for all of the "neither" responses. I've been joint for the last 14 months, and have no idea about the facts of how pure pallet initiative is working. I believe in the concept, but can't weigh in with informed perceptions.

Case #: 1362

Component: Active

Rank: O-3

AFSC: 21R

TIS (Years): 17.25

Time at PPP (Months): 18.00

Time at APS (Months): 0.00

Time at AMS (Months): 48.00

Time at HQ (Months): 24.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 4.00

Time at Fwd Deployed (Months): 18.00

Time at Other (Months): 0.00

Recommended Improvements:

Remember that it's not a band-aid....it's not the best program for ALL End to End (E2E) situations. For example, it works well in CENTCOM due to the rougher logistic infrastructure and the hostile (literally) environment. However, it may not have the same overall efficiencies in EUCOM or PACOM, where the distribution systems are very mature/robust and no one's shooting at anyone. My opinion: it's a tool in the toolkit for USTC/AMC to provide better service, but should only be one of many tools in the toolkit. Thus endeth the lesson.....cheers!

Case #:	1368
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	3.75
Time at PPP (Months):	46.00
Time at APS (Months):	36.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

To reduce the PHT on some cargo you should allow units that have the airlift. For example you have RMS as an in transit port. When Dover gets some cargo that is left over after the pure pallet is built, these little pcs of cargo just sit and build up PHT and the war fighter is not get the supplies, why not build a mixed pallet to RMS and then can break it down and rebuild so it can still flow through the airlift system. At least the cargo is half way there. On occasion special may build a mixed cargo pallet to RMS which accepts many different destinations, but this is not happening nor is it allowed at DOV for the general cargo side of the house.

Case #:	1379
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	18.42
Time at PPP (Months):	28.00
Time at APS (Months):	18.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00

Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 0.00
Time at Other (Months): 0.00

Recommended Improvements:

Pure pallet and TDD's are conflicting programs. If there isn't enough cargo for that specific pure lane don't send the pallet out with just one or two peices on it; consolidate with another lane or allow for loose loading of cargo.

Case #: 1388
Component: Active
Rank: E-4
AFSC: 2T2
TIS (Years): 3.67
Time at PPP (Months): 4.00
Time at APS (Months): 0.00
Time at AMS (Months): 0.00
Time at HQ (Months): 0.00
Time at AOC (Months): 0.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 8.00
Time at Other (Months): 0.00

Recommended Improvements:

I've learned how to build pallets through OJT.

Case #: 1396
Component: Active
Rank: O-4
AFSC: 21R
TIS (Years): 11.25
Time at PPP (Months): 0.00
Time at APS (Months): 0.00
Time at AMS (Months): 36.00
Time at HQ (Months): 0.00
Time at AOC (Months): 36.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 6.00
Time at Other (Months): 6.00

Recommended Improvements:

We must continue to educate everyone in the process as to the intent and process of the pure pallet program. There have been problems, increased costs, and in some cases,

increased wait times but that is not as much of a reflection of the program as it is the implementation and management of the program.

Case #:	1398
Component:	Active
Rank:	E-3
AFSC:	2T2
TIS (Years):	1.50
Time at PPP (Months):	19.00
Time at APS (Months):	15.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The program works well for high volume consignee's. However there are many consignees that receive minimal cargo and the mixing of pallets is needed for pallet utilization and quicker delivery into the AOR.

Case #:	1403
Component:	Active
Rank:	O-6
AFSC:	21R
TIS (Years):	22.42
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	36.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	4.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I am currently XXX CC at XXX and do not deal with Pure pallets here. My dealings with it was at USTRANSCOM as Air Ops Chief and I was on the first CDDOC at Arifjan when Pure pallets started. Seemed like a good idea. I answered a lot of "4" above; just not as close to it anymore. vr XXX

Case #:	1407
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	29.92
Time at PPP (Months):	42.00
Time at APS (Months):	12.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	7.00
Time at Other (Months):	0.00
Recommended Improvements:	
Roll out to Res components	

Case #:	1423
Component:	Active
Rank:	O-2E
AFSC:	21R
TIS (Years):	16.83
Time at PPP (Months):	48.00
Time at APS (Months):	18.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

First and foremost implement the Slave Pallet initiative. Current 463L pallet supplies are in high demand and hard to retrieve from the AOR. The slave pallet would establish a significant cost savings while meeting the tenants of the Pure Pallet program. Secondly, solidify DODAACs and only update on set intervals. This will allow for more predictability in the program and its updates. Thirdly, only allow the DODAACs with the heaviest of cargo flow to the most remote areas utilize the pure pallet program. This would maximize pallet utilization while giving those warfighters in danger the support they require. Finally, increase manning at applicable aggregate APOEs to offset this increased effort.

Case #:	1424
Component:	Active
Rank:	E-9
AFSC:	2T2
TIS (Years):	22.00
Time at PPP (Months):	20.00
Time at APS (Months):	0.00
Time at AMS (Months):	20.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

There is an increased workload and cost by the shippers and ports, but it is work the benefits to the warfighter. None of the questions matter near as much as two: Is the warfighter getting their cargo in a timely matter and are duplicate ordering decreased?

Case #:	1430
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	18.25
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	4.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Ensure bases that have Supply or trans under civilian contract are aware this is the way of the future. At my present base, we have discussions daily on what the disposition procedures are for pure pallets. PACAF is about 1 month from completing the "test" period. I think the pure pallet program should be enforced Air Force wide. it is a huge benefit not only to the war fighter but day to day ops also.

Case #:	1437
Component:	Active

Rank:	E-5
AFSC:	2T2
TIS (Years):	13.92
Time at PPP (Months):	94.00
Time at APS (Months):	84.00
Time at AMS (Months):	10.00
Time at HQ (Months):	0.00
Time at AOC (Months):	4.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Change the 120 hour PHT standard down to 96 or 72. The current 120 hour standard is absurd. Do not make little pieces of cargo wait so long for a ride. Allow small pieces that have greater than 72 or 96 hours to be loaded loose. The program is working as it is intended. the benifets outweigh the costs in the long run. Do not abandon the program, it just needs a little improvement.

Case #:	1448
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	23.50
Time at PPP (Months):	4.00
Time at APS (Months):	175.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

There should be a hands on training course for the program.

Case #:	1494
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	9.00
Time at PPP (Months):	4.00

Time at APS (Months):	48.00
Time at AMS (Months):	30.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	6.00
Time at Other (Months):	29.00

Recommended Improvements:

I have never even heard of the pure pallet concept until this survey was sent to me.

Case #:	1500
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	8.00
Time at PPP (Months):	8.00
Time at APS (Months):	0.00
Time at AMS (Months):	8.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

This survey is the first mention I have heard of the Pure Pallet Program. Since Jan 2004 (the date mentioned in the survey) I have been stationed at Ramstein and currently stationed at Incirlik and see pure destination pallets daily destined for various points in the AOR. Incirlik is currently operating a "Cargo Hub" delivering pure pallets all over Iraq direct to the destination where the cargo is required and reducing the number of convoys required to deliver the cargo. But there has been no prior mention by Squadron, Group or higher leadership about the "Pure Pallet Program". Therefore my responses are "Neither" and "Strongly Disagree". I cannot accurately respond to this survey without more knowledge of this program.

Case #:	1505
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	12.33
Time at PPP (Months):	24.00

Time at APS (Months):	0.00
Time at AMS (Months):	12.00
Time at HQ (Months):	12.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	24.00

Recommended Improvements:

Outstanding program with lots of potential. Keep the warfighter as the focus as the program is refined. More improvement is need with Info systems to help with synchronization and pallet management. Look at better integration of info system outside the airlift system (e.g. GATES and CMOS)

Case #:	1508
Component:	Reserve
Rank:	O-6
AFSC:	21R
TIS (Years):	24.50
Time at PPP (Months):	6.00
Time at APS (Months):	282.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	6.00
Time at Other (Months):	0.00

Recommended Improvements:

I am a strong supporter of the pure pallet program. However, I beleive that pure pallets should be held longer to make maximum utilization of the airframe aviability. Additionally, getting the pallets back from the end user seems to be the biggest issue with the program. My recommendation is to utilized more skids in palletizing cargo or disposable pallets to allow the volocity to continue while keeping the 463L assets in the Aerial Port control.

Case #:	1524
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	20.50
Time at PPP (Months):	49.00

Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	1.00
Time at Other (Months):	0.00

Recommended Improvements:

It's a great benefit to the warfighter and I believe it allows the cargo to transistion through supply/cargo hubs quicker. It reduces aircraft utilization rates, reduces average pallet weight, and increases number of aircraft required to get the job done. If contracts were written better it could be eliminated at major downrange hubs, and consolidation points need to be better utilized. KWI, for example...sends trucks forward with a full 5 pallets, but only 1/4th of the truck capacity which causes another truck to be generated for the next pallets. This increases trucks...convoys..personel in grave danger..etc. Pure pallets should be utilized for small sites or areas where loads must move quickly due to force protection, but for large hubs like KWI/RMS etc., it costs us some bang for the buck.

Case #:	1535
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	22.00
Time at PPP (Months):	4.00
Time at APS (Months):	72.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	9.00
Time at Other (Months):	0.00

Recommended Improvements:

This survey seems to really be biased. From an arieal port point of view, I wouldn't have access to the entire pipeline data, that is info that would most likely be visable to DLA and briefed at MAJCOM level. Recently TACC placed some security measures on their web-sites which had this data (weekly) and annual compliations, so now if I am curious, I need my squadron commander's permission to access it now. It doesn't address the issues/problems we experienced in the field when some of the DEPOTS only built pallets for commercial aircraft, and we needed them to be configured for C-130 aircraft in order to expidite movement to end destination. We experienced this

problem Jan 2005 to May 2005 with cargo coming from CHS to OR9.

Case #:	1540
Component:	Active
Rank:	O-5
AFSC:	21R
TIS (Years):	15.67
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	4.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

While working in the CDDOC the largest problem we had with the pure pallet was the small units who couldn't fullfill a complete pallet immediately and had to wait for additional or mixed assets. As the program matures units should be familiar enough with requirements and that should eliminate this issue.

Case #:	1549
Component:	Reserve
Rank:	E-8
AFSC:	2T2
TIS (Years):	21.08
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	30.00

Recommended Improvements:

Include color coded placards for quick identification.

Case #:	1565
Component:	Active
Rank:	E-6

AFSC:	2T2
TIS (Years):	13.50
Time at PPP (Months):	2.00
Time at APS (Months):	0.00
Time at AMS (Months):	2.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I think it is a good program. Information needs to be distributed to more people to be more effective.

Case #:	1575
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	14.08
Time at PPP (Months):	4.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

Just one point to make. My only exposure to the Pure Pallet program was as leader of an aerial port team off-loading pure pallets at Al Asad. The issue for me, at that level, was "what is a pure pallet?" Is it all cargo destined for a particular base? Service? At Al Asad what would happen is we would get a pure pallet from the DLA distribution ctr at New Cumberland. It might have an Army TCN on it (because it is mostly Army stuff). It took us about 2 1/2 months to realize that there is often other cargo on the pallet belonging to civilian contractors, Marine Aviation, Marine ground, Army, Navy Seabees, etc. The reason that is a problem is that at Al Asad we would not break down the cargo and call the units. What we did is call the Army to come get their cargo, they would come get it, take it down to the Army movement control area and then break it down and call the appropriate unit to come get it. Same with the Marines. So, what would happen when the Army Specialist broke down a pallet and saw that it was NOT for an Army unit? Many times it was lost. Not a good thing. I finally got to the point

where I gave feedback to the CDDOC that, to us at Al Asad, a pure pallet was all Army, all Marine aviation, or all Marine "other." The point is that if DLA puts an Army TCN on a pallet (lead TCN) the field will assume it is all Army cargo.

Case #:	1579
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	23.58
Time at PPP (Months):	23.00
Time at APS (Months):	0.00
Time at AMS (Months):	23.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have been involved with this program from the start. As for sorting by consignor codes/destinations great idea. What seems a waste is having several aerial ports holding cargo for the same destinations for 120 hours. My two cents is we should have had an RDC in Iraq/Stans from the beginning, manned with 2T2/2T0's to sort consolidate cargo to max pallet capacity when trucked to customers in the fields. All they do now is load whatever pallet arrives from CONUS/Europe on a truck, most being low profile or below 70 inches high. It would make sense for aerial ports to follow the plan as far as sorting the cargo in lanes but not hold over 24 hours if airlift is available. If you have enough mixed cargo to fill a pallet, send it to Iraq or Stans and have them break, consolidate with other pallets to max the trucks to destination. Why wait 72 hours? Can't believe we send aircraft/crew in harms way with low ACL's/low profile pallets instead of putting 10-20 more bodies on the ground and have them run a distribution hub, sorting/consolidating and maxing the trucks out with cargo to destination. With low profile pallets the trucks have to make more trips (in harms way).

Case #:	1603
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	17.58
Time at PPP (Months):	0.00
Time at APS (Months):	60.00
Time at AMS (Months):	0.00

Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	12.00
Time at Other (Months):	0.00

Recommended Improvements:

Here at XXX, Pallets have been built with a 1 Lbs piece of cargo due to the pure system. It cannot be mixed with anything going to the same area. It sits here for 120 hours before it can be built. This is a waste of money and not very customer orientated. We should concentrate on getting the customer their cargo no matter how small in the least amount of time. But because being pure, we have to leave it sit for 120 hours before it can be built on a pallet. These pallet have gone because it is older than other pallets. This pallet get put on an aircraft and a pallet that weights 5000 and has 20 to 30 pieces on it sits because the a/c is full. This is not a one time instance. It happens atleast once a week. The pure pallet system is good but I think that if you have less than 50 pounds of cargo, you should mix it with another pallet and then identify that it is a mixed pallet. Most of the time it is less than 5 pieces of cargo that takes up room for someone elses cargo. Thank You.

Case #:	1607
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	16.33
Time at PPP (Months):	4.00
Time at APS (Months):	4.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

While I was at Bagram it was "nice" to have pure pallets that could be loaded directly onto onward movement transportation to the outlying locations...made the system work really good...reduced the time required to get cargo into the customers hands... (note - the Army was responsible for the coord on onward movement of cargo - the USAF only offloaded the cargo)

Case #:	1630
Component:	Reserve

Rank:	E-6
AFSC:	2T2
TIS (Years):	27.00
Time at PPP (Months):	10.00
Time at APS (Months):	10.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have only slight familiarity with the pure pallet program but not ONE of my TDY supervisors or supervisors in my Reserve Unit has given me the slightest bit of information on this program. I just received some working knowledge of the program, mostly when I was at IUD/Al Udeid for an AEF rotation. In order for me to give more accurate answers I would feel it necessary to actually have been given an orientation in to the pure pallet program. Thank you.

Case #:	1635
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	23.75
Time at PPP (Months):	2.00
Time at APS (Months):	0.00
Time at AMS (Months):	4.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The pure pallet pgm is a great initiative. It gets the cargo to the warfighters quicker during the normal duty week, but we keep busting our PHT on weekends and holidays. We're having difficulty with the Supply Support Activities in Korea staying open during the non-duty week. We are currently working this issue with USFK Theater Distribution Group.

Case #:	1640
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Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	21.50
Time at PPP (Months):	51.00
Time at APS (Months):	0.00
Time at AMS (Months):	17.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Update/re-educate the aerial ports leadership and workers on this initiative... that way you'll have buy-in and a more motivated workforce knowing what this initiative is all about.

Case #:	1650
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	22.75
Time at PPP (Months):	6.00
Time at APS (Months):	48.00
Time at AMS (Months):	144.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Now that the AOR is drawing down the personnel in the field should REALLY assess their needs and prevent redundant supplies from being sent and ordered for the AOR. The pure pallet program is great for initial influx to a theater of operation. Supply inventory is critical to maintain control of the assets that are sent so the PPP is not over stressed and can be of benefit to the areas that have the most need. Efficient use of aircraft and pallets/cargo distribution is vital in sustaining the warfighter.

Case #:	1653
Component:	Reserve

Rank:	E-4
AFSC:	2T2
TIS (Years):	7.92
Time at PPP (Months):	15.00
Time at APS (Months):	15.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

There should be a monthly report of product that that hasn't moved since arrival in port. Often, product will arrive for locations that few product is heading:therefore, pure pallets can't be utilized. The pure pallet program has no plan "B". There should be a monthly report that ports must submit showing product that has more than 30 port hold days. Also for special handling they should list number of products, weight, and class. There have been times where product will sit in the bays because we don't have enough product or the product isn't compatible to send a pure pallet.

Case #:	1671
Component:	Active
Rank:	O-5
AFSC:	21R
TIS (Years):	23.08
Time at PPP (Months):	5.00
Time at APS (Months):	5.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	5.00

Recommended Improvements:

Have it built at CCP (DLA centers NOT at APS) Give APS "teeth" to turn cargo away if it is not correctly labeled Hold DLA accountable for correctly built pallets Do not allow DVD (direct vender delivery) to APS, make it go through DLA Have measurable standards for trucks to drive to APOD -- not at truckers convience Contract for trucks to deliver to APOD 24/7 and insistant on it! Allow direct communications between DLA Distribution centers and APS to make improvements.

Case #:	1672
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	19.33
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	24.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The Pure Pallet Program should only be used during war-time to support the needs of the war-fighter as determined by the COCOM.

Case #:	1674
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	20.42
Time at PPP (Months):	0.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I don't have any comments for improving this program because I am not familiar with how it works.

Case #:	1681
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	12.33

Time at PPP (Months):	24.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The pure pallet program is a good concept, except it is causing a lot of low profile pallets to be sent through the airlift system. This is causing us to have to utilize more aircraft and costing more money.

Case #:	1701
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	3.25
Time at PPP (Months):	40.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

I did not know what the pure pallet program was until I started this survey. I have an idea of what the pure pallet program is although I still am not sure what the program actually consists of.

Case #:	1703
Component:	Guard
Rank:	E-8
AFSC:	2T2
TIS (Years):	38.50
Time at PPP (Months):	14.00
Time at APS (Months):	4.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00

Time at AOC (Months):	10.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Pure pallets should NOT be built from CONUS unless a pallet can be bulked out for movement. Pure pallets create an increase to Intra-theater airlift due to short weight/non-bulked pallets reducing the utilization of airlift. I received pallets from Dover with a net weight of as low as 150 lbs and pallets from the TDC with a net weight as low as 5 lbs going to CONUS. Receiving pallets with these weights causes a need for increased airlift. The AMC ports and the TDC are equipped and manned to provide cargo processing to allow pallets to be broken down for onward movement allowing for airlift to be loaded to the ACL instead of bulking out. Short weight pallets at times can also create difficulties in loadplanning for weight and ballance although this issue is minimal. If cargo is held at the AMC port in CONUS until a reasonable net weight or bulk is attained, port holds will increase for locations with minimum cargo movement, sending mixed pallets to the AOR and on to the TDC for break down and forward surface movement move the cargo more effectively and efficiently. I do believe we need to support the warfighter with needed supplies as soon as reasonably posible but if we increase the number of pallets for airlift in the AOR that has limited resources and strained now this can only increase port hold times and slow down the process. If CONUS sends pure, pallets validated for airlift, those pallets will stay at KCIA, Balad or Bagram for airlift instead of moving on to the TDC and move by surface. Currently most cargo into KCIA moves to the TDC and moves surface to the AOR. If a large percentage of that comes as pure it will continue by air. The other current issue is pallets, nets and straps. Currently the TDC build pure pallets to move to the AOR by surface on 463L pallets. A large percentage of these go to forward deployed units with no asset recovery plan. The troops receiving the cargo don't know how to handle the assets and do not have the dunnage to handle properly. It's my opinion that all surface cargo out of the TDC should move on skids and shrinkwrapped. All pallets, nets, straps and chains should be recovered at the TDC and returned to CONUS. They should maintain a minimal supply to build their airlift pallets only. At KCIA I developed an asset recovery plan which recovers a substancial number of assets but that is only the tip of the iceberg. The TDC recovery would also reduce the number of damaged pallets by not allowing them to move forward and be set on the geound in stone and being handled by untrained personnel.

Case #:	1712
Component:	Guard
Rank:	E-4
AFSC:	2T2
TIS (Years):	7.92
Time at PPP (Months):	15.00

Time at APS (Months):	15.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Since I work in Special Handling the improvement would be to have a monthly report that list the port hold time, items, weight of items, and hazard class. There were times where you couldn't build a pure pallet because of compatibility issues and lack of quantity of items going to some of the areas in the AOR.

Case #:	1713
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	13.17
Time at PPP (Months):	0.00
Time at APS (Months):	3.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I was unaware that the "Pure Pallet" had a program. I know when I was stationed at Ramstein, we were trying to build pure pallets and we were happy to see them come in. It took more time to build but we knew it was going to be easier for the troops down range and it was. They was back in 1997.

Case #:	1723
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	13.25
Time at PPP (Months):	32.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00

Time at HQ (Months):	0.00
Time at AOC (Months):	4.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

I would eliminate the pure lanes going to the KWI TDC. One of the programs stated goals is to save lives. The less pallets we have to break and rebuild in areas we are getting shot at and mortared at the better. I have yet to read about anyone getting shot at or mortared in Kuwait. There's no reason why the Kuwait TDC can't break the pallets down there and rebuild for direct missions into Iraq.

Case #:	1737
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	3.17
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I think it should be taught at more intransit bases to reduce the lost cargo logs and also a lot of intransit ports deal a lot with other services that would also benefit from the program where we can release a pallet as a whole instead of having to break through all the cargo for one piece.

Case #:	1740
Component:	Reserve
Rank:	E-4
AFSC:	2T2
TIS (Years):	2.67
Time at PPP (Months):	14.00
Time at APS (Months):	8.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

There needs to be more structured training on the pure pallet program so every aspect is understood by all airmen.

Case #:	1766
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	15.00
Time at PPP (Months):	0.00
Time at APS (Months):	180.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I am not familiar with the pure pallet program

Case #:	1776
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	27.83
Time at PPP (Months):	0.00
Time at APS (Months):	180.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

More information needs to be disseminated to the Reserve Units to properly

comprehend this program and infrastructure support to make it work. The Pure pallet program may not apply to reserve units due to mission requirements differing from AD forces in regards to AOR applicability.

Case #:	1806
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	23.92
Time at PPP (Months):	71.00
Time at APS (Months):	71.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The largest problems by far are, ALOC pallets being either improperly built (heavy items on top of crushable items) or the nets being unservicable(rusted hooks, cut webbing)/improperly installed. This causes the aerial ports to breakdown and repalletize cargo. The other area that impedes cargo movement is improper documentation, IMPAC purchases arriving at the port with incomplete or no consignee information. These issues truly impede cargo movement. Processing and building a Pure Pallet isn't any different from building and processing by POD. It eliminates or at least reduces the breakdown, separation and handling of cargo by the war fighter. It is better for us in the Strategic Ports to take the extra time to build pure pallets vs. the deployed person having to tear down and separate cargo. It gets the cargo to the rightful owner quickly when it enters the AOR.

Case #:	1812
Component:	Active
Rank:	O-1E
AFSC:	21R
TIS (Years):	11.00
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00

Time at Fwd Deployed (Months): 0.00
Time at Other (Months): 144.00

Recommended Improvements:

21R1 should have familiarization training at initial LRO course in S.A. Texas.

Case #: 1813
Component: Active
Rank: E-6
AFSC: 2T2
TIS (Years): 14.50
Time at PPP (Months): 5.00
Time at APS (Months): 0.00
Time at AMS (Months): 0.00
Time at HQ (Months): 0.00
Time at AOC (Months): 0.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 5.00
Time at Other (Months): 0.00

Recommended Improvements:

I am unfamiliar with the pure pallet program. I only speak from experience in the field. We received numerous pallets marked "PURE PALLET". We still had to break the pallets down the same amount of pallets. The pallets came in all marked for the Marines or Army, but we still had to break them down since they had numerous TCN. If the pallets would come in under one TCN. That would help out.

Case #: 1830
Component: Active
Rank: E-6
AFSC: 2T2
TIS (Years): 19.00
Time at PPP (Months): 18.00
Time at APS (Months): 18.00
Time at AMS (Months): 0.00
Time at HQ (Months): 0.00
Time at AOC (Months): 0.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 0.00
Time at Other (Months): 0.00

Recommended Improvements:

Quality control, we receive pure pallets not properly palletize. Cargo is crushed. we

have to spend several manhours rebuilding these pallets to make them air worthy

Case #:	1838
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	6.25
Time at PPP (Months):	49.00
Time at APS (Months):	0.00
Time at AMS (Months):	49.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I would like to know what the PPP is. Other than seeing pallets with stickers labeled "PURE", I don't know what difference it's made. If it's moving assets directly through ports like Ramstein, I think it's a great idea and it's probably reduced manpower requirements for pallet buildup. I worked in the ramp section at Ramstein, I just know I loaded a lot of cargo in the 4 years I was there. I never recieved any info on the PPP, the statistics of what cargo has been shipped, or seen any direct impact on my duty section.

Case #:	1859
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	26.08
Time at PPP (Months):	185.00
Time at APS (Months):	14.00
Time at AMS (Months):	5.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	0.00

Recommended Improvements:

The lower ranking airmen need a little more training to understand why we must do this. During peak work load periods, more people are needed to meet the time

constraints imposed by building pure pallets.

Case #:	1886
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	21.67
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	24.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Constant monitoring needs to take place to ensure updates are recieved in a timely manner.

Case #:	1887
Component:	Guard
Rank:	E-5
AFSC:	2T2
TIS (Years):	8.50
Time at PPP (Months):	5.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I would suggest that the pure pallet program not be pushed so hard leaving small misc shipments to difficult locations in the port to build up longer port hold times. I think the pure pallets are great for downrange. There is a need for more nets, however.

Case #:	1892
Component:	Active
Rank:	E-6

AFSC:	2T2
TIS (Years):	16.25
Time at PPP (Months):	25.00
Time at APS (Months):	25.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	24.00
Time at Other (Months):	0.00

Recommended Improvements:

Educate people, get out in the field and ask them all of these and LISTEN/ACT on the feedback they give you. These ideas should be vollied with the workers not just the "Desk Jokeys" at HQ level.

Case #:	1893
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	8.58
Time at PPP (Months):	8.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	0.00

Recommended Improvements:

I think the pure pallet program is more costly but is worth the work, time and money. It moves cargo more precisly with less work for the men on the front line. They should be able to just grab and go rather than take valuable time to sort through miscellaneous cargo, and 10 different pallets that are thru load and have nothing to do with the mission in mind.

Case #:	1905
Component:	Active
Rank:	E-8
AFSC:	2T2
TIS (Years):	17.83

Time at PPP (Months):	134.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

Hazards materials for low density locations seem to have more hold time especially if incompatibles are present. The conception I have is sealift is not being used for mass/large amount like items..ie armor kits/tires/vehicles. Conex/20ft/40ft sealift vans are improperly used in airlift(haz/tiedown) increasing frustration/port time

Case #:	1926
Component:	Reserve
Rank:	E-5
AFSC:	2T2
TIS (Years):	19.00
Time at PPP (Months):	8.00
Time at APS (Months):	42.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	12.00
Time at Other (Months):	0.00

Recommended Improvements:

Just like anything else, when there are an adequet number of trained personell....then you should have enough toget a more accurate "Feedback" from. While I was deployed, whatever we had and was ready went on the a/c that came in. Some of the the pallets were at capacity and some were not. We sent what we had because it was needed by someone a bit closer to the action.

Case #:	1931
Component:	Reserve
Rank:	E-5
AFSC:	2T2
TIS (Years):	24.58
Time at PPP (Months):	0.00

Time at APS (Months):	36.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The increase of the amount of cargo loaded onto a pallet should be maximized for every pallet in order to move an increased amount of cargo.

Case #:	1932
Component:	Active
Rank:	O-6
AFSC:	21R
TIS (Years):	28.58
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	24.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I wouldn't build the pure pallets at the APOE, I would make them pure at the receiving APOD in the AOR. USE the FEDEX/DHL example. Flights departing CONUS would be carrying mixed freight. Closer to delivery the cargo becomes pure for specific customers.

Case #:	1958
Component:	Active
Rank:	O-2E
AFSC:	21R
TIS (Years):	10.00
Time at PPP (Months):	0.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00

Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Staging locations to build the pallets that will be designated as pure pallets. This will help all bases identify and send cargo to be built with decated airlift not on channel and waiting on TACC to schedule aircraft with preceived cargo waiting. The AF scheduling system is based on what we may have or show from previous years instead of what we actually have on hand. we are running off of the past/history to build a new lean initiative for the future. We need to start all over with a clean slate to help the pure pallet concept develop to help not only the AF but also the DOD.

Case #:	1961
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	20.67
Time at PPP (Months):	12.00
Time at APS (Months):	6.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The pure pallet program is a logical process for expediting cargo to one location. Less effort is needed and a more proficient shift results. the pure pallet program should remain with us to aid the warfighters.

Case #:	1968
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	19.83
Time at PPP (Months):	18.00
Time at APS (Months):	0.00
Time at AMS (Months):	84.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00

Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 0.00
Time at Other (Months): 0.00

Recommended Improvements:

The biggest issue is education and ensuring that all nodes along the way understand the concept. Once folks understand why they are doing it then the support of the program improves. Discipline from the requisitioner to the transporter and everyone in between needs to improve in order to make the system most efficient. Data integrity is paramount to success.

Case #: 1981
Component: Active
Rank: O-4
AFSC: 21R
TIS (Years): 12.58
Time at PPP (Months): 17.00
Time at APS (Months): 0.00
Time at AMS (Months): 0.00
Time at HQ (Months): 0.00
Time at AOC (Months): 12.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 3.00
Time at Other (Months): 0.00

Recommended Improvements:

Difficulty has always been communicating the AF MICAP requirements to Joint (Army) through ports; i.e. other port operators have held AF MICAPs until enough arrive to build a pure pallet. Pure pallet concept must stress Green sheet or Purple sheet exceptions to include AF MICAPs so as to avoid delays.

Case #: 1988
Component: Active
Rank: E-7
AFSC: 2T2
TIS (Years): 21.58
Time at PPP (Months): 0.00
Time at APS (Months): 4.00
Time at AMS (Months): 0.00
Time at HQ (Months): 12.00
Time at AOC (Months): 0.00
Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 0.00

Recommended Improvements:

Possibly this has already been addressed, but a better plan to return the empty 463L assets needs to be implemented. Currently, it seems as if pallets w/cargo are sent to the ultimate consignee and it takes lengthy time for them to get the empties returned for re-use, if returned at all.

Case #: 1990

Component: Active

Rank: O-3E

AFSC: 21R

TIS (Years): 17.58

Time at PPP (Months): 9.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 5.00

Time at Other (Months): 0.00

Recommended Improvements:

In AEF 7/8, Balad AB Iraq, we experienced difficulties with our Army brethren sending us pure pallets. Unfortunately, the pallet would have one item on it...total pallet weight 300-400 lbs! Not very efficient use of a pallet position. Our pallet positions increased, but our total tonnage took a drastic nosedive, leading AMD to direct less airflow our way. Less airflow is not a good thing in the AOR...it leads to more convoys.

Case #: 1992

Component: Reserve

Rank: E-6

AFSC: 2T2

TIS (Years): 21.67

Time at PPP (Months): 24.00

Time at APS (Months): 9.00

Time at AMS (Months): 5.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 10.00

Time at Other (Months): 0.00

Recommended Improvements:

Distribute the positive effects of the PPP from the DLA builder to the end user. Let more folks know this program is working!

Case #: 2001

Component: Active

Rank: O-5

AFSC: 21R

TIS (Years): 18.92

Time at PPP (Months): 0.00

Time at APS (Months): 0.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 0.00

Time at Other (Months): 24.00

Recommended Improvements:

Need to implement within our existing and future IT systems so that the pure pallet program doesn't require as much manual oversight and intervention. The warfighter needs to ensure that DoDAACs and route plans are update as soon as possible so cargo isn't routed to the wrong locations and that changes can be implemented quickly.

Case #: 2004

Component: Guard

Rank: E-5

AFSC: 2T2

TIS (Years): 5.67

Time at PPP (Months): 0.00

Time at APS (Months): 56.00

Time at AMS (Months): 0.00

Time at HQ (Months): 0.00

Time at AOC (Months): 0.00

Time at CDDOC (Months): 0.00

Time at Fwd Deployed (Months): 12.00

Time at Other (Months): 0.00

Recommended Improvements:

This survey should be more step-based ... meaning if you choose one option, your next

options should be predicated upon that previous response. To be honest, I have no idea what the pure pallet program is or does.

Case #:	2018
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	19.50
Time at PPP (Months):	4.00
Time at APS (Months):	120.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Provide more pallization assets, MHE and manning to process pure pallet cargo more efficiently.

Case #:	2035
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	8.08
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	18.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have been out of AMC for a few years but have read articles and briefings on this program. Without having direct involvement on the program it sounds like it could work in cases where a lot of cargo moves to a specific location on a regular basis. It would seem that there are some locations where this may not work quite as well and it actually may take longer to receive cargo. I can't back that up with any facts but that would be my perception without actually being involved with the program.

Case #:	2062
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	28.08
Time at PPP (Months):	134.00
Time at APS (Months):	1.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The only problem I see with the program is that if one piece of equipment is going to a destination and has a long hold time, pallet under utilization will result. For the person on the destination, it is a great program because they don't have to worry about breaking the pallet down and distributing the equipment.

Case #:	2067
Component:	Reserve
Rank:	O-5
AFSC:	21R
TIS (Years):	30.25
Time at PPP (Months):	2.00
Time at APS (Months):	1.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Explanation and oversight.

Case #:	2068
Component:	Active
Rank:	E-4
AFSC:	2T2

TIS (Years):	5.08
Time at PPP (Months):	4.00
Time at APS (Months):	60.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Neither myself, or anyone in my shop right now (ATOC, XXX AFB), have any idea what the pure pallet program is. A little clarification would probabaly be best.

Case #:	2069
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	15.50
Time at PPP (Months):	18.00
Time at APS (Months):	0.00
Time at AMS (Months):	18.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Fewer convoys means fewer lives at risk; worth it! We're meeting the 1.5T/plt average so I'll take the PHT hit and the extra processing time anyday to help downrange warfighters. Great program making a real impact.

Case #:	2075
Component:	Reserve
Rank:	O-3E
AFSC:	21R
TIS (Years):	19.58
Time at PPP (Months):	12.00
Time at APS (Months):	12.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	7.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Better refinement of DoDACs assigned to the pure pallet will help when it gets to the theater.. mixing Army and Air Force cargo on a pure pallet for Balad doesn't work...

Case #:	2083
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	7.92
Time at PPP (Months):	21.00
Time at APS (Months):	12.00
Time at AMS (Months):	4.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	0.00

Recommended Improvements:

More training should be available to all levels. Understanding why you do your job the way that you do makes it easier for supervisors to achieve urgency from their troops and attention to the task at hand. The end results of this program are very rewarding but not communicated often or effectively enough to the lower ranks.

Case #:	2125
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	12.50
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	48.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Channel commercial planes are already in place for CONUS-CENTCOM, these are wonderful assets freeing the mil planes for contingencies. Problem is over utilization of the c-17 fleet (not front-page news) and specifically the lack of spares. Tailswaps are the norm and it shouldn't have to be that way. Part of the effort saved by the PPP on the Aerial port ramp service section is used in tailswaps. Overall PPP is an awesome idea and its workin well for Ramstein.

Case #:	2159
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	16.83
Time at PPP (Months):	0.00
Time at APS (Months):	96.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00
Recommended Improvements:	
	Have not heard about it!

Case #:	2193
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	22.17
Time at PPP (Months):	4.00
Time at APS (Months):	18.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00
Recommended Improvements:	
	nothing, i think it's working just fine.

Case #:	2210
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	8.33
Time at PPP (Months):	0.00
Time at APS (Months):	29.00
Time at AMS (Months):	56.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	11.00

Recommended Improvements:

Information concerning the pure pallet program needs to be easily accessible for everyone. If there is a place or site where this information can be found it needs to be known for all to have access. Also, a WBT(Web Based Training) containing everything there is to know about the pure pallet program and what its intended to do would be a great way to get everyone trained and on the same page. I also recommend that the civilian companies building the pure pallets be trained on how to properly build and document all pallets to decrease and in time eliminate all discrepancies so we could actually cross dock the pallets and then simply wait on aircraft to move them. Training and getting the information out to everyone, even the 2T2's outside of AMC and our ANG/AR members, is the key!!!

Case #:	2211
Component:	Active
Rank:	O-5
AFSC:	21R
TIS (Years):	16.42
Time at PPP (Months):	4.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

When I arrived Tallil, we did not have a pure pallet program and we had cargo lost all

over the AOR. When other units would break down the pallets, it seems our cargo always "came up missing". Granted the Port hold time may rise for certain pallets/locations, but without a doubt we recd our cargo sooner with the pure pallet program in-place. It is a good idea and should be continued...however even good ideas can be improved. Maybe pallet segmenting? We could create a device that separates a pallet into two or more portions and incapacitates the cargo for quick breakdown and consolidation onto another pallet at the ISB. Just an idea.

Case #:	2212
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	15.17
Time at PPP (Months):	36.00
Time at APS (Months):	0.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The program does what it was designed to do (get the cargo to the war fighter). Unfortunately, it does so at the expense of the workers (pallet builders, load planners) outside the AOR. Granted the manning and equipment are not as adequate in the AOR at all locations, you have people already working 14hr days now playing a continuous game of catch-up because of the backlog of cargo to AOR destinations. The truth is, only those war fighters who ship BULK benefit from the system. There are a lot of units who are trying to get small parts, equipment they desperately need only to wait while it sits gaining PHT until there is enough for a pure pallet. Then when there is enough for a pallet, it's a 4,000lb pallet. So now we are underutilizing our aircraft (which are already stretched pretty thin). The whole process is disheartening from a load planner/pallet builder prospective. Get the cargo to the AOR slower so that it gets to the war fighter faster? Doesn't sound right does it? I would like to know how much research was done on improving the logistics in the AOR before we went with the "Pure Pallet" concept. The system works, because someone complained that sorting out "their" cargo took too long, and now they don't have to (Aerial Porters are doing it for them). I'm sure that the higher ups (E8< enlisted and O4< officer) are saying it's great, but the truth is, it's a band aid not a legitimate fix.

Case #:	2249
Component:	Active

Rank:	E-6
AFSC:	2T2
TIS (Years):	14.42
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	24.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I don't think the Pure Pallet program should be abandoned but I do think it needs some modification to increase the effective use of equipment and to better utilize the aircraft weights. I see pallets move sometimes weighting about 400lbs just the pallet and net weight 355lbs so the net weight on the cargo is about 45lbs. Pure Pallet program is a good one but needs to be improved and use alittle differently.

Case #:	2276
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	10.92
Time at PPP (Months):	24.00
Time at APS (Months):	0.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	6.00
Time at Other (Months):	6.00

Recommended Improvements:

Increase the ability for APOE/APOd's to have enough manning/equipment to support such a great program. The pure pallet program will work with time and the will to do more with less.

Case #:	2281
Component:	Active
Rank:	E-5
AFSC:	2T2

TIS (Years):	6.50
Time at PPP (Months):	7.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	4.00

Recommended Improvements:

If you are going to build a pure pallet make sure it is for one branch of service instead of inner mixing. At several bases there are certain DODDACs for certain branches but they still seem to get intermixed.

Case #:	2301
Component:	Active
Rank:	O-3E
AFSC:	21R
TIS (Years):	19.33
Time at PPP (Months):	6.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	6.00
Time at Other (Months):	0.00

Recommended Improvements:

Closer coordination between suppliers (e.g. DLA) and operational organizations would result in a more effective/efficient stream of materiel to the warfighter. Movement of organizations in theater without sufficient notification to suppliers can/does result in mis-shipped materiel.

Case #:	2333
Component:	Reserve
Rank:	E-5
AFSC:	2T2
TIS (Years):	5.58
Time at PPP (Months):	4.00
Time at APS (Months):	4.00

Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

An example that I have is a 300lbs piece on a pallet that is taking up a pallet position on an aircraft that could have been placed onto another pallet getting more pallets to the war fighter. We have sent out planes full of pallets with an acl of 25,000lbs, where we could have maximized the acl on 90,000lbs by not having pure pallets. We continually have a backlog of cargo that needs to get to the war fighter. It is great concept, but needs some improvements within the utilization of aircraft. If more than one item is going to the same location and same unit then the pallets should be consolidated into one instead of having two pure pallets.

Case #:	2369
Component:	Active
Rank:	E-4
AFSC:	2T2
TIS (Years):	5.25
Time at PPP (Months):	0.00
Time at APS (Months):	34.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have never been briefed on the pure pallet program.

Case #:	2440
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	17.08
Time at PPP (Months):	7.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00

Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	7.00
Time at Other (Months):	0.00

Recommended Improvements:

A lot of pallets are held waiting for enough cargo to cap it out. There should be a time drawn when the pallet (even though small) could be finished and shipped. Multiple partial pallets take up a lot of room, especially in deployed areas where the Aerial Port does not own a lot of land.

Case #:	2445
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	7.42
Time at PPP (Months):	24.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Never have been explained the finer details of the pure pallet program, however I would assume the obvious commitment to alleviate problems downrange when it comes to final distribution amongst the various units. Secondly, I don't understand why this survey had to ask the same questions over and over and over and over and over again with different wording, did I say over. Over and out.

Case #:	2462
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	9.00
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	5.00

Recommended Improvements:

Pure Pallet has a different meaning to the AF than it does to the Army. Pure Pallet to the AF means same final destination. Pure Pallet to the Army means same unit, same destination. If the cargo is not high enough in the Army system to warrant going on a plane in the AOR, it will go by ground. (Army is dictating cargo priority in AOR) If it goes by ground, it will be moved by the Army/Army contractor system. I think the biggest problem comes from the disconnet in Army and AF defination of pure pallet and the difference between AF and Army logistical thought. The AF works off the Spoke and Hub model, we get it to one unit at a central location that knows its job to get the cargo to the final user. The Army uses the train track model where HQ equips the train and as the train goes along the track it kicks off the cargo. But the track is defined through the chain of command rather than geography. So their system (using AF lingo) goes like this: Cargo goes first to the Air Staff From the Air Staff it goes the Majcom From the Majcom it goes to the Wing From the Wing it goes to the Group From the Group it goes to the Squadron From the Squadron it goes to the Flight. From the Flight it goes to the Element. Neither is better, but you can see why a pure pallet by AF standards gets so slowed down in an army system. In contrast, when using the AF system, it means our planes aren't as efficient because they are using 100% of their space, but only half of the actual capacity. According to Kuwait City Aerial Port roughly 98% of all cargo hauled by the AF in the AOR is army cargo. (March 04) According to the Army roughly 2% of all of their cargo is hauled by the AF (March 04). So their 2% cargo is their most vital stuff, which takes up almost 98% of our in theater capacity. The long term consequences is that our system was not designed to handle current operations. We do not have a method of getting pallets back under the pure pallet program (or at least we didn't in Apr 04). A pure pallet by Army definition will go all the way to the FOB before the cargo is taken off. Once at the FOB, there is no one to make sure the pallet comes back. End result, pallets make good floors, walls, foxhole covers. Or if the pallet stays at the TDC, AMC expects the army to gather, clean and deliver the pallets. End result if AMC doesn't break first: pallets make good floors, walls and foxhole covers. Second, pure pallet by AF definition, once given to the Army is no longer pure by defintion, so it will add 24-72 hours (optimal conditions) before it moves on (Roughly estimated pipeline moved 200K per day, just on the price of the objects, didn't include transportation, manpower or overhead cost). I had seen cargo stay a long as week, though in my stint we got the majority of cargo from the TDC at Doha to Kirkuk in about 7-10 days. XXX, DSN XXX

Case #:	2478
Component:	Active
Rank:	E-5
AFSC:	2T2

TIS (Years):	16.83
Time at PPP (Months):	0.00
Time at APS (Months):	60.00
Time at AMS (Months):	36.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	48.00
Time at Other (Months):	48.00

Recommended Improvements:

try to return empty pallets back to a unit either as 1 for 1 or 1 for 2 as a direct flight from the west coast. The assets never get back to the port that has send them out in the first place.

Case #:	2492
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	8.33
Time at PPP (Months):	5.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	0.00

Recommended Improvements:

Attention to detail, where I was located we had numerous occasions where pallets came in marked pure, but infact were mixed pallets.

Case #:	2509
Component:	Active
Rank:	E-7
AFSC:	2T2
TIS (Years):	28.92
Time at PPP (Months):	5.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	8.00
Time at Other (Months):	0.00

Recommended Improvements:

The problem I can see is there is no tracking of individual pieces I understand the process however like Free Flow Cargo from the Log Air Days cargo was always getting lost and reordered costing the government more money in the long run. Also Valuable Aircraft Assets such as Pallets/nets and straps chains devices are being lost and stolen misused in the AOR by the Army and other Units using the Pure pallet program. I understand the need to get their equipment and materials fast and quick however I feel this system is being abused and the Military are losing more money than they are saving.

Case #:	2514
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	17.58
Time at PPP (Months):	4.00
Time at APS (Months):	24.00
Time at AMS (Months):	28.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Only war fighting materials need to be in the pure pallet, not office furniture or Household goods.

Case #:	2524
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	13.83
Time at PPP (Months):	50.00
Time at APS (Months):	0.00
Time at AMS (Months):	48.00
Time at HQ (Months):	0.00

Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	2.00
Time at Other (Months):	0.00

Recommended Improvements:

The pure pallet program should be used for those major distributors and they should hold onto the cargo until they have enough to build a pallet. Also, we need to figure out a way to acquire the assets back from the downrange sites. The loss of pallets and nets have increased since starting the pure pallet program. The users we are delivering these pallets to are not returning the assets for us to use again.

Case #:	2528
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	7.92
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	13.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Once TACC has visibility of the cargo leaving the CONUS, they should schedule the aircraft to meet the needs of the destinations at that point. This will allow the backlog at downline stations to crossflow to the final destinations easier. Currently, the backlog at intransit stations increases awaiting airlift for the proper destinations.

Case #:	2536
Component:	Active
Rank:	E-5
AFSC:	2T2
TIS (Years):	5.08
Time at PPP (Months):	37.00
Time at APS (Months):	36.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00

Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 6.00
Time at Other (Months): 0.00

Recommended Improvements:

Not everyone seems to know the basics of this program.

Case #: 2548
Component: Active
Rank: E-6
AFSC: 2T2
TIS (Years): 16.08
Time at PPP (Months): 5.00
Time at APS (Months): 72.00
Time at AMS (Months): 72.00
Time at HQ (Months): 0.00
Time at AOC (Months): 0.00
Time at CDDOC (Months): 0.00
Time at Fwd Deployed (Months): 0.00
Time at Other (Months): 48.00

Recommended Improvements:

I spent 5 months at Q-West Iraq. During that time I seen the pure pallet program working for the warfighter as it is put in this survey. During my 16 years as a 2T2 I have seen it work just fine, end product is not really seen from my position. Concerns I do have for this program is the Army portion of the equation. While in Iraq I seen over 20 pallets severely damaged by loading pure pallets onto trailers with rocks and debris not being swept away. I also seen many pallets routed to wrong locations due to Army education of how the program works. I am also concerned with the fact that cargo would be sent from Turkey to Q-West destined for Anaconda and other locations that would have to be convoyed by the Army. Now if this pure pallet program is designed to help the warfighter, then why are we making them convoy to locations farther than one hour away. If we are loosing most of the warfighters to road side IED's then the pure pallet program should be designed with more of a scope for intra theater airlift availability. This is what I saw while I was at Iraq.

Case #: 2592
Component: Active
Rank: O-3
AFSC: 21R
TIS (Years): 20.00
Time at PPP (Months): 0.00
Time at APS (Months): 0.00

Time at AMS (Months):	30.00
Time at HQ (Months):	0.00
Time at AOC (Months):	30.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

All Transportation Functions for my current location are contracted out services. I do not have any 2T2's assigned here. Very little aspects of the Pure Pallet Program are resident here.

Case #:	2612
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	12.00
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	20.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

First off what do questions 11-14 have to do with the Pure Pallet program. I was the Cargo/ Loadplanning supervisor at an enroute station. I had to do my own research on this program as I did not receive any training or see any messages when it started up. the pallets counts are way down, since we, the Air force, use our own assets to build pure pallet for other services I don't believe we are receiving these assets back. We need a way to identify Air Force 463L equipment so we can receive them back.

Case #:	2634
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	36.00
Time at PPP (Months):	13.00
Time at APS (Months):	8.00
Time at AMS (Months):	0.00

Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

keep the people informed at all times.I was never trained for utilization of the pure pallet program except told about pure pallets coming in from the outside for shipment.

Case #:	2643
Component:	Reserve
Rank:	E-5
AFSC:	2T2
TIS (Years):	11.33
Time at PPP (Months):	32.00
Time at APS (Months):	24.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

make sure to have more supplies going in the same direction.

Case #:	2649
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	11.58
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	36.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Great concept, works well for most in the logistics chain. Can seem slow to the end user/customer, but it is statistically faster (DLA has great stats on this). The program just needs a little worker bee level salesmanship. Maybe publish some statistical comparisons?

Case #:	2691
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	19.42
Time at PPP (Months):	0.00
Time at APS (Months):	233.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Ranstien air force base, cargo (pure pallets) for centcom, sit for as many as five days until there is enough to build a pure pallet. Also load planners multiply problems by not walking there loads properly and/or bumping cargo in ADS or LOGISTIC modes especially 2 or more pallets trains (increasing rebuilding of pallet trains). Load Masters refusing loads for no GOOD apparent reasons other than they won't take it. And Lastly, Civillian workers (mostly the retired military) Who insist on doing the dumbest things. An example loading a 55 gallon drum through the l/rear cargo door.

Case #:	2705
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	30.33
Time at PPP (Months):	0.00
Time at APS (Months):	300.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Better training

Case #:	2708
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	18.58
Time at PPP (Months):	12.00
Time at APS (Months):	4.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	8.00
Time at Other (Months):	0.00

Recommended Improvements:

At the reserve level, the pure pallet program is a foreign concept. The only exposure that may be given is from those few members that have deployed and shared their experiences when they return. The reserve and/or guard units, for the most part, are unaware of this program.

Case #:	2750
Component:	Active
Rank:	O-4
AFSC:	21R
TIS (Years):	13.67
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	7.00
Time at HQ (Months):	12.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	12.00

Recommended Improvements:

Challenge is to build lower-volume pure pallets and still utilize aircraft effectively. Would love to see innovations that allow for smaller pallets, stacked pallets or the like that would allow greater utilization of airlift while still maintaining the "don't break it down" mentality.

Case #:	2752
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	11.17
Time at PPP (Months):	0.00
Time at APS (Months):	122.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I am a reservist in the XXX aerial port squadron and I have never heard of this program

Case #:	2780
Component:	Active
Rank:	O-3E
AFSC:	21R
TIS (Years):	16.00
Time at PPP (Months):	3.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Letting the troops know what is the Pure Pallet Program. I have inquired of every member involved with pallets in this unit and no one has any idea of what the program is. Perhaps a column for 'I do not know' should have been added. I used 'Neither' instead. Now that you have piqued my curiosity, please share with this community what is the Pure Pallet Program. It might be a good thing. Thanks!

Case #:	2791
Component:	Reserve

Rank:	E-7
AFSC:	2T2
TIS (Years):	22.00
Time at PPP (Months):	0.00
Time at APS (Months):	5.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	4.00
Time at Other (Months):	0.00

Recommended Improvements:

In special handling in XXX; we had trouble getting more than 1,000 lbs. for certain destinations; so it would be more beneficial if the troops had a little more lee-way in being able to mix some pallets; so as to prevent long pht for some cargoes that get left behind; due to small amount of cargo for that destination. ; regards; msgt XXX

Case #:	2816
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	7.58
Time at PPP (Months):	7.00
Time at APS (Months):	38.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Good concept BUT PHT has increased and TDD has been hit hard. Need to combine more DODAACs to increase pallet weight and in-turn increase aircraft utilization. I love the concept BUT needs to be tweaked to ensure AMC is getting more bang for its buck.

Case #:	2828
Component:	Active
Rank:	E-7
AFSC:	2T2

TIS (Years):	16.17
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	24.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Further guidance is needed and it needs to be implemented AF Wide with further guidance given to the shipper.

Case #:	2831
Component:	Guard
Rank:	E-6
AFSC:	2T2
TIS (Years):	14.00
Time at PPP (Months):	13.00
Time at APS (Months):	8.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	0.00

Recommended Improvements:

Develop a training / familiarization program for the guard and reserve (airmen and supervisors like) I never heard of the program until I was activated. Stress key points around the goals and objectives of the program. Familiarize folks with the environments at places like Balad Iraq. In war zones, we have army contractors handling army cargo and they want that cargo yesterday. We tried to pull manifests from GATES prior to aircraft arrival in order to identify pallets and their destinations prior to arrival (some army DODACS did not go to those contractors If the contractor takes the pallet and then realizes it doesn't belong to them, then they return it to the air force and they get paid to handle the pallet twice). In other words, the contractors like to sign for all Army cargo then break the pallets or identify pure pallets that are to be moved onward and re-enter that cargo into the system. This is how the contractor gets paid for handling the cargo (even if they only physically move the pallet once) We need to find a way to get informed when units move from one location to another more efficiently. We identify specific DODACS and their locations, but

when the unit moves to another location, their cargo tends to terminate at their old locations and re- enter the system to move on to the actual location. Slows us down, uses excess man hours, ad makes for unhappy customers.

Case #:	2846
Component:	Reserve
Rank:	E-7
AFSC:	2T2
TIS (Years):	33.42
Time at PPP (Months):	10.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	5.00
Time at Other (Months):	6.00

Recommended Improvements:

I believe more airman should be aware of the program. I dont believe every airman has been exposed to this unless they were doing mandays at the right locations at the right time. Maybe train this at UTA'S

Case #:	2857
Component:	Reserve
Rank:	O-3
AFSC:	21R
TIS (Years):	19.58
Time at PPP (Months):	10.00
Time at APS (Months):	5.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	36.00

Recommended Improvements:

Ensure pallets reaching the APOD or Hub are actually "Pure". Much time is lost when having to break down and redistribute cargo into the correct holding area to rebuild. Additionally, w/Airflow schedules heavily in favor of larger more common destinations, pht increases for the smaller less common destinations. All in all a good

concept, but we need to continue to push the concept so that pure becomes the norm rather than mixed.

Case #:	2866
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	14.50
Time at PPP (Months):	0.00
Time at APS (Months):	12.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have had very little involvement with pure pallets in the last year. All my info was based on a year ago.

Case #:	2878
Component:	Guard
Rank:	E-6
AFSC:	2T2
TIS (Years):	22.00
Time at PPP (Months):	28.00
Time at APS (Months):	264.00
Time at AMS (Months):	264.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	42.00
Time at Other (Months):	0.00

Recommended Improvements:

Still configuring the overall system to find bugs that maybe needed to be tweaked to smooth out the operation.

Case #:	2879
Component:	Guard
Rank:	E-7

AFSC:	2T2
TIS (Years):	26.67
Time at PPP (Months):	12.00
Time at APS (Months):	12.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I was activated for 1 year and assigned to XXX AFB from Jan 03 to Jan 04. I saw the implementation of the pure pallet program after returning from Kandahar AF, Afghanistan. The concept is well founded provided that the amount of cargo supports the program. On several occasions I saw cargo sit for up to 40 days for some destinations. An example of this would be about 500 lbs or less for a particular destination and there were a dozen channels in this condition. It took a lot of wrangling and lot of coordination with the parent service and the receiving station to move the small amounts of cargo to the AOR. I worked Load Planning at XXX.

Case #:	2883
Component:	Active
Rank:	O-3E
AFSC:	21R
TIS (Years):	16.92
Time at PPP (Months):	26.00
Time at APS (Months):	21.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

We should be able to move a single piece of cargo the has accumulated hours as loose cargo (if in weight standards) w/RFID attached to the piece instead of taking up one entire pallet position on an aircraft.

Case #:	2894
Component:	Guard

Rank:	E-6
AFSC:	2T2
TIS (Years):	14.08
Time at PPP (Months):	9.00
Time at APS (Months):	0.00
Time at AMS (Months):	8.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

The 2T2x1 job is not hard, but we still need to hire good people and train good people and also develop them in the AF ways. There are Airmen in this Air Force that are afraid to do their job because the way the leadership has presented the Pure Pallet Program. There is ways to get Airmen to eat a Shit Sandwich and ask for more, but the common theme of today's Airforce is training topics like Sexual Harassment, and Homosexual Awareness and that is just two things that came to mind. With that in mind, the Pure Pallet Program could have been sold better. It has not, therefore it has failed.

Case #:	2910
Component:	Active
Rank:	E-6
AFSC:	2T2
TIS (Years):	17.33
Time at PPP (Months):	0.00
Time at APS (Months):	0.00
Time at AMS (Months):	2.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

Pure pallets need to be built by being fully utilized or "cubed" out so that we can fully utilize aircraft space instead of sending out pallets that are short in height or not maxing out a pallets capabilities. As of what I've seen, the cargo is being moved because of time restraints to get it downrange to the end user instead of building pallets to maximize aircraft and airlift/transportation resources.

Case #:	2942
Component:	Reserve
Rank:	E-8
AFSC:	2T2
TIS (Years):	29.25
Time at PPP (Months):	7.00
Time at APS (Months):	0.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I have never heard of the pur pallet program.

Case #:	2966
Component:	Active
Rank:	O-3
AFSC:	21R
TIS (Years):	8.67
Time at PPP (Months):	4.00
Time at APS (Months):	0.00
Time at AMS (Months):	3.00
Time at HQ (Months):	24.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	3.00
Time at Other (Months):	0.00

Recommended Improvements:

Good concept that reduces cargo wait time at the SPOD...however; there is increased wait time at the POE ensuring that there is enough cargo to fill one pallet. The cargo prepping lanes prior to palletizing is very Similar to the break bulk warehouse operations at the end user locations. Many times cargo will sit in a warehouse waiting for enough to fill a container/pallet/truck. With the focus on getting the right supplies to the right customer at the right time...I would like to see a study done to analyze the PHT vs. customer wait time in both scenarios. In addition, I would recommend focussing a dore-to-door type process that would get the supplies to the warfighter without wait time for depalletization. In the pure pallet program we still have to add wait time involved with depalletizing and onward movement to the troops in the

field/foxholes that do not use 463L or have that capability. The Joint Modular Intermodal container concept is focused on similar goals as the Pure Pallet Program...reducing supply wait time. JMIDS are Joint multi-modal / service packages and platforms with integrated asset tracking that permit the efficient and seamless movement of supplies through the distribution system to include retrograde operations. However, if I remember correctly they have multiple consignee cargo within each container. If one was to advise using JMIDS under the "pure" concept...I would be interested to see the results of using air/sea/land movable containers that are addressed to a single consignee. Does not remove the PHT, but would be interesting to see what the results are.

Case #:	2989
Component:	Reserve
Rank:	E-6
AFSC:	2T2
TIS (Years):	19.75
Time at PPP (Months):	15.00
Time at APS (Months):	117.00
Time at AMS (Months):	0.00
Time at HQ (Months):	0.00
Time at AOC (Months):	0.00
Time at CDDOC (Months):	0.00
Time at Fwd Deployed (Months):	0.00
Time at Other (Months):	0.00

Recommended Improvements:

I recommend you make this program more known to reserve as well as active duty components.

These additional comments were sent directly to this researcher via email and were not recorded in the survey database:

Since I came back from OEF deployment in July 02 and OIF deployment in July 03 the survey closed since I have no direct involvement with the pure pallet program in the time frame requested. I do think it is a good initiative. Below are two issues that I would like to share with you if you have the time.

An example of Combat Support operations from Operation ENDURING FREEDOM was the delivery of cargo to Karshi-Kanabad AB (K2 AB).

The Army controlled this site after SOF moved forward and this was the first LOG hub for OEF. There were many problems at this site where if I was in charge I would change things for the next time.

1. One huge problem was when cargo was brought in, the Army would not keep track of where they would place the pallets of cargo so daily they would have to walk about the camp looking for critical items that we proved were delivered by GATES and GTN but had not yet reached the end user. End users would show up and the Army would not know their cargo had already arrived. There needs to be an exact joint tracking system brought in on the first SOF or TALCE team and if the Army is to operate the airfield without a TALCE then they need to bring in their own ground tracking system or use one from the AF. This program should be exchanged to the next follow on unit and it should be something as simple of dividing the base in grid squares and to place where pallets are staged so they would not become lost. As pallets are retrieved or broken down then the database should reflect this also.
2. Another issue is that cargo would arrive in C-17 pallet buildup configuration. This is great if this was the end stop but it wasn't in most occasions. Specified pallets that were to end there (in K2 AB) should have been built this way but the problem was all the pallets were done this way in CONUS or Ramstein AB and not reconfigured at Ramstein AB. This showed great utilization rates for TRANSCOM but put a hurt on CENTCOM since now pallets had to be broken down and rebuilt and retagged, JI'd, etc... for C-130 movement to Bagram AB and Qandahar AB; all with a mandate of having a minimal footprint as possible forward in the AOR. The Army did not plan on doing this mission and had to send additional personnel forward to break down C-17 configured pallets to C-130 configured pallets in muddy conditions, no cover, etc... Perhaps in future crisis the DIRMBOFOR could had Ramstein AB build C-130 configured pallets for 15 days of sustainment of all classes of supply that had to go down range after K2 even if they were flown from Ramstein AB to K2 AB. This would have saved time getting supplies to our forward forces.

I've got some feedback for you that is a little more specific than the survey will convey I think. While I was deployed at Camp Victory (HQ Multinational Corps, Iraq) we had issues with getting cargo on time to Tal Afar.

The problem as I perceived it was:

1. Pure pallets were being built for Tal Afar at KCHS. Initially when I called the port (air freight) they had no idea that they had the channel for Tal Afar and when I asked them to look for the ICAO in their backlog report they did not see anything.
2. When I could get them to identify that they were the owners of the channel, I was told by TACC/port that although there was a validated channel, airlift would only

be allocated if there was enough cargo to warrant a mission. Given that Tal Afar was being built pure, pallets were slow to build and cargo velocity was at a snails pace for Tal Afar

3. Hub and spoke concept was sending the Tal Afar cargo through Incirlik. However, Incirlik does not accept commodity code 2/3 cargo so those items would sit at the port and wait for enough cargo to build a pallet and move through Balad/other Iraq validated channels.
-

1. When assigned to 3rd Army HQ's I realized that from the apportionment of C-130 A/C for different OPLANS that the 3rd Army HQ's (soon to be CFLCC HQ's) had no concept of how to use tactical (intratheater) airlift support. One doesn't get promoted it seems in the Army by saying "We need help of any kind from a sister service", so for 12 years after the Gulf War the Army component of CENTCOM were not planning on using the C-130's on the TPFDD. CENTAF staff would tell me that they would use all of the C-130's for the first 45 days just to move WRM assets. When I challenged the Army they said they (the Army) were too heavy and would move all their class of supplies by surface from Kuwait to Iraq and didn't need the USAF. When I challenged the Air Force (9th Air Force) they said they would use all the C-130's initially before they would share. This was largely due that since 3rd Army wasn't speaking with their USAF counterpart on re-supply requirements and rate of re-supply mainly because CENTCOM and component HQ's had never practiced anything other than the defense of Kuwait up to that time. This was in Aug 2000. I spoke directly with CENTCOM J-4 shop division about this and they agreed that the Logistics piece needed to be totally rewritten since they knew there would be a Joint Movement Center stood up to prioritize all intratheater movement and allocate the assets working hand in hand with the DIRMBOFOR and the Air Mobility Division building the ATO's.
2. Convinced a small contingent of Army LTC's in G-5 and G-4 that if the Army could change where they planned to place their Logistics Supply Areas (LSA's) on the Major Supply Routes (MSR's) where there were Iraqi airfields that could land at least C-130's that I could get the Air Force to support the Army's logistics requirements upfront even though CENTAF said they would not release C-130's for this mission. The Army made these changes to their OPLAN and submitted to CENTCOM. The next hurdle was that the Air Force had not planned on operating Forward Operating Bases (FOB's) in Iraq as was witnessed in a war-game before OEF and OIF. During a wargame prior to OEF CENTCOM Strategic Movement Center (SMC) "requested" that CENTAF create FOB's in Iraq but they did so where they could not support the Army re-supply since the majority of the wargame was on the fighting and not re-supply issues. CENTAF was concerned with Attack/Fighter/Bombers. CENTCOM directed CENTAF and TRANSCOM that ARCENT needed FOBs for C-130 and C-17 support and showed where these sites were to be. This later allowed CENTAF to use one

FOB (Tallil AB now Ali AB) for A-10 rearming/refueling operations to provide more Close Air Support (CAS) for the Army during OIF.

3. OEF occurred which proved yet again of AMC's crucial role to keep the Army alive on the ground in Afghanistan. Some problems that we dealt with:
 - 3A). Tried to use the new Aerial Bulk Fuel Delivery System (two fuel bladders that fit in pallet positions 1-2.5/2.5-5 w pumps and hoses on pallet position. This would allow 2,500 gals of POL/AVGAS/JP-8 to be brought forward per bag, being two bags per C-130 = 5K gals per sortie max. If you could take off another 2K from wet-wing de-fueling than the total would be 7K gal. It was quickly determined that there was a default in the new ABFDS due to some kind of venting issue and all 50 ABFDSs had to be sent back to the manufacturer for an upgrade. Most if not all of the ABFDS should be fully functional as I write this and the POC for this system is ACC for future OP Planning.
 - 3B). C-17's would land, wet-wing de-fuel depart, then the next C-17 would land and request fuel that was just dropped off. This totally defeated the purpose of the prior C-17 dropping off fuel prior. CFLCC C-4 asked the DIRMBOFOR to get with TACC and fix this which he and the Air Mobility Division (AMD) staff did. CENTCOM also asked TRANSCOM to make sure the C-17's were topped off right before they landed and right after departure so the max amount of fuel could be delivered and not withdrawn again except for SOF C-130's and Army Helo's. The learning curve went up again when it was discovered that on all Block 12 C-17's there was an extra fuel bladder installed between the wings in the cargo bay. At first TRANSCOM did not want to use these for this mission since this gave them longer range for the intertheater movement but CENTCOM kept the pressure on and TRANSCOM gave us the Block 12 C-17's as often as they could for POL delivery to Bagram and Qandahar AB's. My lesson learned for future OPS is to request Block 12 or higher C-17's if I need fuel deliveries and make sure tankers top them off before they land and as soon as they depart.
 - 3C). Karshi-Kanabad (K2): The Army controlled this site after SOF moved forward and this was the first LOG hub for OEF. There were many problems at this site where if I was in charge I would change things for the next time.
 - 3C1). One huge problem was when cargo was brought in the Army would not keep track of where they would place the pallets of cargo so daily they would have to walk about the camp looking for critical items that we proved were delivered by GATES and GTN but had not yet reached the end user. End users would show up and the Army would not know their cargo had already arrived. There needs to be an exact tracking system brought in on the first

SOF or TALCE team and if the Army is to operate the airfield without a TALCE then they need to bring in their own ground tracking system. This program should be exchanged to the next follow on unit and it should be something as simple of dividing the base in grid squares and to place where pallets are staged so they would not become lost. As pallets are retrieved or broken down then the database should reflect this also.

3C2). Cargo would arrive in C-17 pallet builds which is great if this was the end stop but it wasn't. Specified pallets that were to end there should have been built this way but the problem was all the pallets were done this way in CONUS and not reconfigured at Ramstein AB which of course showed great utilization rates for TRANSCOM but put a world of hurt on CENTCOM since now pallets had to be broken down and rebuilt and retagged, JI'd, etc... for C-130 movement; all with a mandate of having a minimal footprint as possible forward in the AOR. They Army did not plan on doing this mission and had to send additional personnel forward all the time pallets were being built in muddy conditions, no cover, etc... If I was the DIRMOBFOR I would have had Ramstein AB build those pallets that had to go down range after K2 to have them built in C-130 loads until the theater became more established as it later did with Qandahar and Bagram AB's when we could eventually land C-17's there.

4. OIF ideas:

- 4A). Too many Congressmen were visiting the theater and for every one two C-130's (sometimes one C-17) would be used for this mission since they would need a back up A/C if something went wrong with the primary. The AF's VIP A/C do not have the countermeasures to fly where the congressmen were needing to go so cargo and troop delivery was shortchanged. I would suggest to the AF that a few of the VIP A/C be upgraded and give them the needed counter measure devices so if and when we have a future conflict then needed cargo A/C are not shortchanged to perform this mission.
- 4B). Retro-grade 463-L pallets: After a few months AMC said they were critically low on pallets and needed them back. The Army then had to ask and later direct pallets to be returned, directed again and again for the pallets to be returned, etc... I would solve this by having units have to report how many pallets they receive per week and how many they are sending back to the LSA's on empty trucks. I am not concerned with having an exact count just to make sure the pallets are in the system and that the Army will worry about them more in the future.
- 4C). Some FOBs were run by the Army which sounds great but the Army does not have any 40Ks or 60Ks assigned to them, these belong to the

USAF. In the JMC we would receive telephone and e-mail requests of Army officers pleading to get K-loaders loaned to them but when the JMC would ask CENTAF for these assets they would say no. The Army FOBs would then have to unload C-747s of 42 pallets each with fork-lifts which was not efficient. In future OPLANS the AF needs to factor in that K-loaders will need to be transferred or loaned to non AF units and to maintainance them. The Army was helping the USAF out by running these airfields but the AF was not helping the Army out by equipping them with K-loaders to efficiently run the airfields.

1. Some of the pallets were built incorrectly. One had 2 very large boxes on a pallet, and they were only a quarter full. These boxes had laundry detergent on top. This made the pallet top heavy and we had a pallet tip over on its head as a result. It could have hurt someone. We were lucky no damage came to AF assets or cargo. What if it had been something fragile. Also some of the boxes on the manifests did not have the correct weights on them which may have caused this problem. (Recommend consolidated shipments be checked for proper documentation i.e. weight and packaging)
 2. Not all the restraints were provided. At Manas my troops had to add restraints on almost all pallets requiring 2 sides and straps. Sgt XXXXX found it was being taught wrong to APS students at the school house, could have been a contributor.
 3. Being able to drop the pallet off to a single user did save time by giving the transfer to TMF and to the user. Overall good idea.
-

Didn't find Manas AB, Kyrgyz Republic. (in Bishkek, Kyrgyz Rep).

Manas is the strat airlift hub for pax and cargo ISO OEF.

The only comment I would have added is that while I like to concept, it can add additional time to the pipeline while a port or depot holds property until they have enough property for an economically feasible pallet-load, rather than shipping priority items as they are received.

I was never assigned to the units you listed. However, I was the CENTAF LNO from XXX 03 to XXX 04 and my duty station was Ali Al Salem. I worked at KCIA, the Army Theater Distribution Center at Doha (Kuwait) and Ali Al Salem, and some at Arifjan.

Here is what I find, use as you see fit.

Pure pallet to AF means same final destination.

Pure pallet to Army means same unit and same location.

If an AF pallet goes onto a vehicle, through the Army TDC, the army will break the pallet apart and sort the cargo so that the same unit's stuff is on the same pallet. The process may have changed in a the year or so I was gone, but I noticed in Kirkuk last year the program seemed to be the same.

What we did to keep AF cargo moving was spray paint the name of the base onto the plastic covering. That seemed to speed things up and then hand carried sized pieces we would put into triwalls. The small MICAPs that were in there were pulled out and sent via FEDEX through the Ali Al Salem TMO.

2 results from this: First, three or four days were added to shipment due to break down and sorting. Second, pallets do not return to the system. The cargo will go all the way to the end of line, which generally doesn't have anyone coming to collect them. On the rare instance they would get them back, AMC units weren't taking them back because they weren't clean. AMC units expected the Army to follow guidance getting the pallets back. Ultimately the army doesn't need them and the AMC is kind of worthless without them.

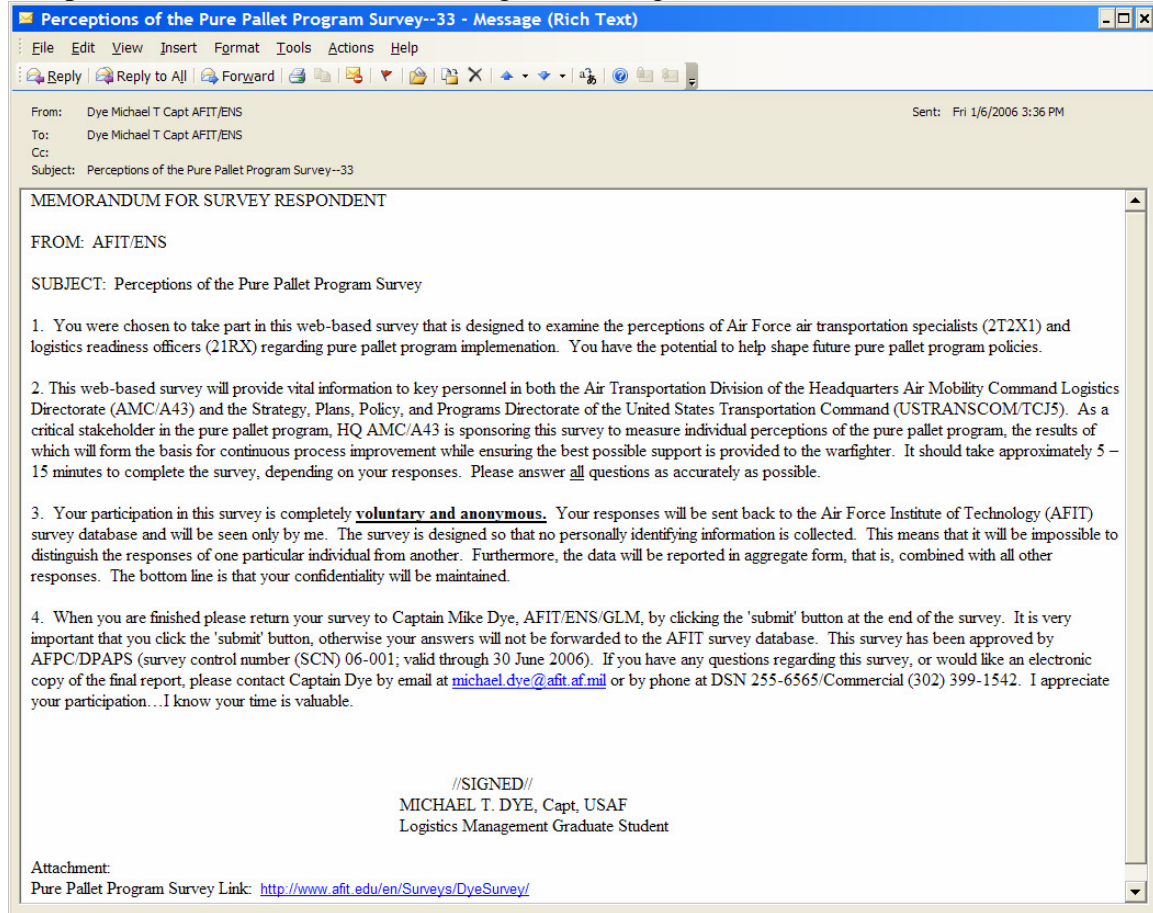
The survey wouldn't let me submit comments because I wasn't at any base listed. Unfortunately I think that the people who really deal with the pure pallet problem are the receivers not the senders. The major aerial ports are big enough to push the users around them, whereas the smaller bases are the ones experiencing longer supply lead times due to the hassles of the number of different people touching the cargo. For example, a part will go from the depot to a port then to somewhere in the AOR. If it is not an AMC part, AMC isn't tracking it. If it isn't a high class priority (like weapons, bullets, blood) then it probably goes onward by ground once in the AOR. So that means it will stop somewhere in the aor, handled by an AMC person, probably given to a contractor to move to the consolidation point where it will wait for either an AF person or a contractor to move it onto a convoy. The convoy will move it to the next distribution point, where the cargo will again be routed to another convoy, hopefully to its final destination. When I was in Kuwait, I found there were 7 organizations that handled the cargo, before it even got into Iraq. If the supplies came by boat, there were even more.

Not to redirect your thesis, but I think you are only getting half of the right data with pure pallet, unless you talk cargo classification. Higher priority works much differently than lower priority. I had one base at 50% VIC and their cargo still wasn't high enough priority to get on a plane. And sometimes the planes take off empty because it is extremely difficult to move from plane to truck to plane again. And lets not forget that sometimes cargo is unloaded from a plane that the load master will no longer take back unless the base fixes it. But the base has no desire to fix it because it wasn't their cargo, they don't need it and if they let it sit then big deal. Not many people are probably looking for cargo.

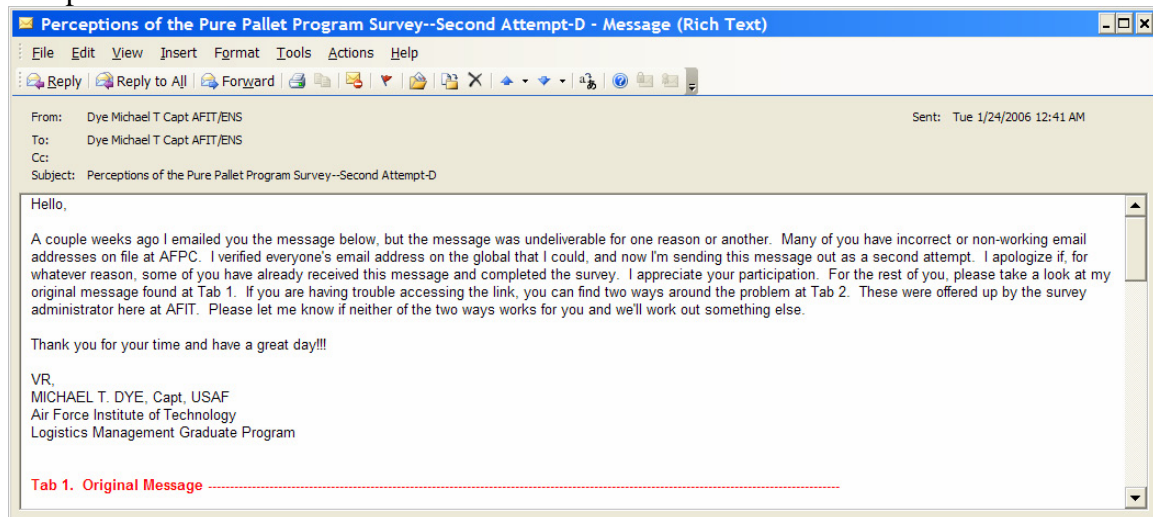
I could go on, but I don't want to bore you with details.

Appendix E: Sample E-mails Sent to Population

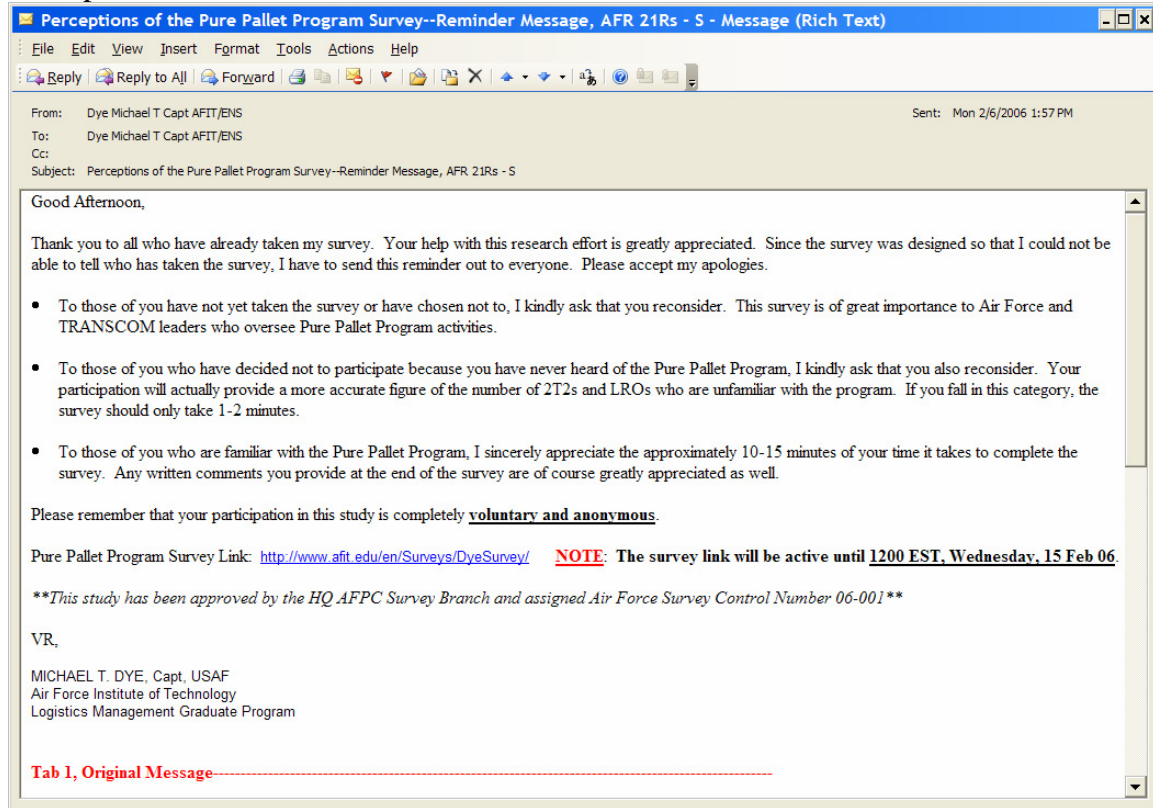
Sample of first initial email wave (Original Message):



Sample of second initial email wave:



Example of reminder email wave:



Appendix F: Exploratory Analysis Documentation

Step 1. Verified ‘SURVEYID’, ‘DTSTAMP’, and ‘TSTAMP’ fields. The values of these fields within the spreadsheet did not match those displayed on the WebSIRS HTML page. The HTML time signatures were disregarded as similarly titled fields were also recorded on the data sheet itself. The time signatures recorded on the spreadsheet were used. During this process, evidence of some sort of recording error occurred near the end of data collection (bottom ~50 cases). ‘SURVEYID’ field, referred to as the case number from this point forward, no longer continued in a sequential manner. The case numbers suddenly jumped from 2966 to 6000, 6001, 6002, and so on until 6035. All cases were sorted by date and time stamp, and then renumbered from 1 to 3,005.

Step 2. Determine the number of valid cases. This was accomplished by sorting the data by rank (E-1, E-2, etc.) The data was visually scanned by comparing age, rank, AFSC, time in service (both years and months), and component to determine if any of the cases were not legitimate. Justification for including component was that it is not uncommon to see an E-6 in the Reserves with 28 years TIS. All 3,005 original cases were reviewed as described above, which resulted in deleting 15 cases for the following reasons:

Case # 74: Experienced? => No; Age => 48; Rank => E-1; AFSC => 21R; TIS => 23.6; Component => Active.

Case #279: Experienced? => No; Age => 18; Rank => E-1; AFSC => Unknown; TIS => 0.0; Component => Active.

Case #281: Experienced? => No; Age => 18; Rank => E-1; AFSC => Unknown; TIS => 0.0; Component => Active.

Case #731: Experienced? => No; Age => 23; Rank => O-2E; AFSC => 21R; TIS => 1.5; Component => Active.

Case #835: Experienced? => No; Age => 20; Rank => E-6; AFSC => 2T231; TIS => 1.3; Component => Active.

Case #1256: Experienced? => No; Age => 18; Rank => E-1; AFSC => Unknown; TIS => 0.0; Component => Active.

Case #1365: Experienced? => No; Age => 43; Rank => E-7; AFSC => 2T271; TIS => 1.9; Component => Active.

Case #1588: Experienced? => No; Age => 36; Rank => E-6; AFSC => 2T2; TIS => 0.0; Component => Active.

Case #1659: Experienced? => Yes; Age => 18; Rank => E-1; AFSC =>Unknown; TIS => 0.0; Component => Active.

Case #1845: Experienced? => No; Age => 48; Rank => E-6; AFSC =>Unknown; TIS => 0.2; Component => Reserve.

Case #1901: Experienced? => No; Age => 18; Rank => E-1; AFSC =>Unknown; TIS => 0.0; Component => Active.

Case #1919: Experienced? => No; Age => 39; Rank => O-8; AFSC =>21R3; TIS => 0.0; Component => Active.

Case #1979: Experienced? => No; Age => 18; Rank => E-1; AFSC =>Unknown; TIS => 0.0; Component =>Active.

Case #2402: Experienced? => Yes; Age => 57; Rank => O-3E; AFSC =>2T291; TIS => 0.0; Component => Reserve.

Case #2747: Experienced? => No; Age => 18; Rank => E-1; AFSC =>Unknown; TIS => 0.0; Component => Active.

Deleting the 15 cases as noted above reduced the number of valid cases to 2,990.

Step 3. Scanned ‘AGE’ field. All cases contained a value. Not surprising as the default value in the drop-down menu is the value ‘18’.

Step 4. Scanned ‘GENDER’ field. *A total of 69 cases had the value ‘999’, an indication of non-response, however, no cases were deleted for any reason pertaining to this field.*

Step 5. Scanned ‘RANK’ field. All cases contained a value. Not surprising as the default value in the drop-down menu is the value ‘E-1’.

Step 6. Scanned ‘COMPONENT’ field. All cases contained a value. Not surprising as the default value in the drop-down menu is the value ‘Active Duty’.

Step 7. Scanned ‘SPECIALTY_CODE’ field. Since respondents were required to manually type in their AFSC, it was not surprising to see a very wide variation of reported values. A new column was added to the spreadsheet and labeled ‘AFSC’.

- Respondents who indicated anything that resembled the AFSC 2T2 or 21R received the value ‘2T2’ or ‘21R’ as appropriate in the newly created ‘AFSC’ column. *A total of 1,865 cases were assigned the value ‘2T2’ and 1,043 cases were assigned the value ‘21R’.*

- Respondents who indicated an AFSC completely different from 2T2 or 21R received the value ‘Other’ in the newly created ‘AFSC’ column. ***A total of 60 cases were assigned the value ‘Other’.*** There were two exceptions to this rule:
 - Cases in which the respondent indicated their AFSC to be that of a Group Commander or Deputy. It is assumed that these respondents are serving as Mission Support Group Commanders or Deputy, and have the requisite career background for purposes of this study. A total of **11** cases qualified for this exception, all of which were assigned the value of ‘21R’ in the ‘AFSC’ column.
 - Cases in which the respondent indicated their AFSC to be that of a training manager within their unit. It is assumed that these respondents have the requisite career background for purposes of this study. A total of **4** cases qualified for this exception, all of which were assigned the value ‘2T2’ in the ‘AFSC’ column.
- Respondents who left the ‘SPECIALTY_CODE’ field blank were assigned the value ‘Unknown’ in the ‘AFSC’ column. ***A total of 22 cases were assigned the value ‘Unknown’.***

NOTE: Cases assigned the value ‘Other’ or ‘Unknown’ in the newly created ‘AFSC’ column were not included in any portion of the data analysis. The **only** exception to this rule was responses to the open-ended question, which were not used for quantitative analysis but for descriptive analysis. It was determined that, even if not specifically assigned in the 2T2 or 21R career field, it is more than possible that a respondent may have first hand knowledge of and/or experience with the pure pallet program. Examples of these situations might include traffic management specialists (AFSC 2T0) or maintenance officers (AFSC 21A), previously assigned to the 2T2 or 21R career field, serving in positions to where pure pallet program experience was gained

Step 8. Scanned ‘PROGRAM_ACTIVITIES’. This field indicated which respondents reported having knowledge of and/or experience with pure pallet program activities (Item 8, Part I-Demographics). A total of **766** cases contained the value ‘1’, **228** of which included written comments to the open-ended item. A total of **2,224** cases contained the value ‘2’. By survey design, those respondents who reported no knowledge of the program were not afforded the opportunity to provide comments.

Step 9. Recalculated ‘TIS’. The field ‘TIME_IN_SERVICE_YEARS’ and the field ‘TIME_IN_SERVICE_MONTHS’ were combined into a new column labeled ‘TIS (Years)’, which represents the total number of years in service.

The formula was =‘TIME_IN_SERVICE_YEARS’ + (‘TIME_IN_SERVICE_MONTHS’ / 12). The result was rounded to the nearest 2 decimals.

Step 10. ‘Recalculated Time at PPP Locations’. In order to determine the total time a respondent spent at locations deemed to be involved in some way with the pure pallet

program (whether building, trans-loading, or receiving), the following fields were added together:

- CHARLESTON_AERIAL_PORT_SQUADRON_YEARS
- DOVER_AERIAL_PORT_SQUADRON_YEARS
- RAMSTEIN_AIR_MOBILITY_SQUADRON_YEARS
- KUWAIT_INTERNATIONAL_AIRPORT_YEARS
- AL UDEID_QATAR_YEARS
- TIKRIT_IRAQ_YEARS
- BAQUBAH_IRAQ_YEARS
- BAGHDAD_INTERNATIONAL_AIRPORT_YEARS
- BALAD_IRAQ_YEARS
- MOSUL_IRAQ_YEARS
- TALLIL_ALI_IRAQ_YEARS
- AL_ASAD_IRAQ_YEARS
- KARSHI_KHANABAD_UZBEKISTAN_YEARS
- BAGRAM_AFGHANISTAN_YEARS
- KANDAHAR_AFGHANISTAN_YEARS
- DJIBOUTI_DJIBOUTI_YEARS

...the total of which was divided by 12. This new value, rounded to two decimals, represents the total number of months each respondent reported having spent at these locations since January 2004. This value was then added to the values in the following fields:

- CHARLESTON_AERIAL_PORT_SQUADRON_MONTHS
- DOVER_AERIAL_PORT_SQUADRON_MONTHS
- RAMSTEIN_AIR_MOBILITY_SQUADRON_MONTHS
- KUWAIT_INTERNATIONAL_AIRPORT_MONTHS
- AL UDEID_QATAR_MONTHS
- TIKRIT_IRAQ_MONTHS
- BAQUBAH_IRAQ_MONTHS
- BAGHDAD_INTERNATIONAL_AIRPORT_MONTHS
- BALAD_IRAQ_MONTHS
- MOSUL_IRAQ_MONTHS
- TALLIL_ALI_IRAQ_MONTHS
- AL_ASAD_IRAQ_MONTHS
- KARSHI_KHANABAD_UZBEKISTAN_MONTHS
- BAGRAM_AFGHANISTAN_MONTHS
- KANDAHAR_AFGHANISTAN_MONTHS
- DJIBOUTI_DJIBOUTI_MONTHS

Step 11. Recalculated ‘Time at APS Function (Months)’ field. The field ‘AERIAL_PORT_SQUADRON_YEARS’ and the field ‘AERIAL_PORT_SQUADRON_MONTHS’ were combined into a new column labeled ‘Time at APS Function (Months)’, which represents the total number of months a respondent reported having spent working with the pure pallet program at an APS function.

The formula was $=('AERIAL_PORT_SQUADRON_YEARS' / 12) + ('AERIAL_PORT_SQUADRON_MONTHS')$. The result was rounded to the nearest 2 decimals.

Step 12. Recalculated ‘Time at AMS Function (Months)’ field. The field ‘AIR_MOBILITY_SQUADRON_YEARS’ and the field ‘AIR_MOBILITY_SQUADRON_MONTHS’ were combined into a new column labeled ‘Time at AMS Function (Months)’, which represents the total number of months a respondent reported having spent working with the pure pallet program at an AMS function.

The formula was $=('AIR_MOBILITY_SQUADRON_YEARS' / 12) + ('AIR_MOBILITY_SQUADRON_MONTHS')$. The result was rounded to the nearest 2 decimals.

Step 13. Recalculated ‘Time at HQ Function (Months)’ field. The field ‘HEADQUARTERS_YEARS’ and the field ‘HEADQUARTERS_MONTHS’ were combined into a new column labeled ‘Time at HQ Function (Months)’, which represents the total number of months a respondent reported having spent working with the pure pallet program at a HQ function.

The formula was $=('HEADQUARTERS_YEARS' / 12) + ('HEADQUARTERS_MONTHS')$. The result was rounded to the nearest 2 decimals.

Step 14. Recalculated ‘Time at AOC Function (Months)’ field. The field ‘AIR_OPERATIONS_CENTER_YEARS’ and the field ‘AIR_OPERATIONS_CENTER_MONTHS’ were combined into a new column labeled ‘Time at AOC Function (Months)’, which represents the total number of months a respondent reported having spent working with the pure pallet program at an AOC function.

The formula was $=('AIR_OPERATIONS_CENTER_YEARS' / 12) + ('AIR_OPERATIONS_CENTER_MONTHS')$. The result was rounded to the nearest 2 decimals.

Step 15. Recalculated ‘Time at CDDOC Function (Months)’ field. The field ‘CDDOC_YEARS’ and the field ‘CDDOC_MONTHS’ were combined into a new column labeled ‘Time at CDDOC Function (Months)’, which represents the total number of months a respondent reported having spent working with the pure pallet program at the CDDOC function.

The formula was $=('CDDOC_YEARS' / 12) + ('CDDOC_MONTHS')$. The result was rounded to the nearest 2 decimals.

Step 16. Recalculated ‘Time at Fwd Deployed Function (Months)’ field. The field ‘FORWARD_DEPLOYED_LOCATION_YEARS’ and the field ‘FORWARD_DEPLOYED_LOCATION_MONTHS’ were combined into a new column labeled ‘Time at Fwd Deployed Function (Months)’, which represents the total number of months a respondent reported having spent working with the pure pallet program at a function at some other Forward Deployed Location.

The formula was $=('FORWARD_DEPLOYED_LOCATION_YEARS' / 12) + ('FORWARD_DEPLOYED_LOCATION_MONTHS')$. The result was rounded to the nearest 2 decimals.

Step 17. Recalculated ‘Time at Other Function (Months)’ field. The field ‘PPP_OTHER_LOCATION_YEARS’ and the field ‘PPP_OTHER_LOCATION_MONTHS’ were combined into a new column labeled ‘Time at Other Function (Months)’, which represents the total number of months a respondent reported having spent working with the pure pallet program at a function other than that previously listed.

The formula was $=('PPP_OTHER_LOCATION_YEARS' / 12) + ('PPP_OTHER_LOCATION_MONTHS')$. The result was rounded to the nearest 2 decimals.

Step 18. Scanned Survey Part II Items. A quick scan of the values in the fields for the questions in Part II of the survey resulted in the identification of a problem with two items. For some reason, the WebSIRS software did not properly record the responses for ANY respondent for Items 9 and 10. Item 9 displayed the statement “More time is required to actually build pallet under the pure pallet program.” Item 10 displayed the statement “The pure pallet program reduces the total time required to deliver cargo to the warfighter”. Since the value ‘999’ was recorded into the database for these two items for 100% of the respondents, these two items were completely deleted from the database as if they were never included in the survey. Needless to say, these two items were not included in the statistical analysis.

Other fields also contained the value ‘999’, but those occurrences were few in number and spread randomly throughout the database. All cases with a value of ‘999’ for any of the 7-Point Likert scale items in Part II of the survey were deleted from the database and were not used for statistical analysis. This process, known as listwise deletion, is considered more conservative despite the slight reduction in statistical power associated with reducing the number of cases. *A total of 62 cases were deleted as a result of this conservative approach, leaving a total of 704 usable cases.* Table 27 below displays the frequency of missing values by item number; Table 28 below displays the frequency of missing values by case number; Table 29 below displays the number of cases deleted; and Table 30 displays the demographics of the 62 deleted cases due to missing values.

Step 19. Verified Remaining Fields of Usable Cases. The next step was to determine if there were any other reasons why a particular case should be deleted. Upon further examination, a total of 7 cases were deleted because the AFSC column value was either ‘Other’ (4 cases) or ‘Unknown’ (3 cases). These values were previously assigned by the researcher as indicated in Step 7 above. ***This final verification step resulted in a final adjusted number of 697 usable cases, all of which were used for statistical analysis.*** Table 31 below displays the demographics of the seven deleted cases due to AFSC mismatch.

Table 27. Frequency of Missing Values by Item Number

<u>Item #</u>	<u>Freq.</u>	<u>Cases with '999' values</u>
1	1	2561
2	4	1246, 2561, 2942, 2943
3	3	2561, 2942, 2943
4	4	482, 2561, 2942, 2943
5	6	2193, 2375, 2550, 2561, 2942, 2943
6	4	1566, 2561, 2942, 2943
7	5	1196, 1983, 2561, 2942, 2943
8	9	719, 1021, 1196, 1766, 1983, 2292, 2561, 2942, 2943
9	41	All Cases—This Item Completely Deleted
10	41	All Cases—This Item Completely Deleted
11	11	117, 764, 888, 1021, 1196, 1766, 1983, 2292, 2506, 2561, 2942
12	6	1196, 1766, 1983, 2561, 2680, 2942
13	4	1196, 1328, 1766, 2561
14	5	1196, 1328, 1437, 1766, 2561
15	7	1196, 1328, 1437, 1766, 2561, 2942, 2943
16	9	552, 1021, 1196, 1328, 1766, 2561, 2942, 2943, 2998
17	7	1114, 1196, 1328, 1766, 2561, 2942, 2943
18	6	1196, 1328, 1766, 2561, 2942, 2943
19	8	1159, 1196, 1328, 1766, 2561, 2586, 2942, 2943
20	8	1159, 1196, 1328, 1766, 1852, 2561, 2942, 2943
21	9	1159, 1196, 1328, 1766, 1982, 2485, 2561, 2942, 2943
22	9	150, 1159, 1196, 1328, 1766, 2212, 2561, 2942, 2943
23	7	1159, 1196, 1766, 1830, 2561, 2942, 2943
24	6	1159, 1196, 1766, 2561, 2942, 2943
25	8	462, 1159, 1196, 1766, 2485, 2561, 2942, 2943
26	8	1159, 1196, 1766, 2561, 2606, 2766, 2942, 2943
27	11	334, 676, 1078, 1159, 1196, 1766, 2036, 2561, 2643, 2942, 2943
28	7	771, 1159, 1196, 1766, 2561, 2942, 2943
29	7	1159, 1196, 1569, 1766, 2561, 2942, 2943
30	8	1159, 1196, 1377, 1477, 1766, 2561, 2942, 2943
31	8	482, 668, 1159, 1196, 1766, 2561, 2942, 2943
32	11	448, 462, 668, 764, 1159, 1196, 1766, 1922, 2561, 2942, 2943
33	9	482, 668, 1159, 1196, 1766, 2059, 2561, 2942, 2943
34	10	668, 718, 1159, 1196, 1328, 1766, 2212, 2561, 2942, 2943
35	7	668, 1159, 1196, 1766, 2561, 2942, 2943
36	9	668, 1159, 1196, 1724, 1766, 2426, 2561, 2942, 2943
37	11	469, 532, 668, 700, 1159, 1196, 1862, 2561, 2680, 2942, 2943
38	10	668, 697, 1159, 1196, 1862, 1982, 2561, 2835, 2942, 2943
39	8	668, 1159, 1196, 1852, 2337, 2561, 2942, 2943
40	7	329, 668, 1159, 1196, 1852, 2561, 2943
41	10	552, 668, 1147, 1159, 1196, 1197, 1852, 2561, 2942, 2943
Total = 287 (Excludes Items 9 and 10)		

Table 28. Frequency of Missing Values by Case Number

Case #	# of '999' Values	Case #	# of '999' Values
117	1	1566	1
150	1	1569	1
329	1	1724	1
334	1	1766	27
448	1	1830	1
462	2	1852	1
469	1	1862	5
482	3	1922	1
532	1	1982	2
552	2	1983	4
668	11	2036	1
676	1	2059	1
697	1	2193	1
700	1	2212	2
718	1	2292	2
719	1	2337	1
764	2	2375	1
771	1	2426	1
888	1	2485	2
1021	4	2506	1
1078	1	2550	1
1114	1	2561	39
1147	1	2586	1
1159	23	2606	1
1196	33	2643	1
1197	1	2680	2
1246	1	2766	1
1328	11	2835	1
1377	1	2942	35
1437	1	2943	34
1477	1	2998	1
			287

Table 29. Number of Cases Deleted Due to Missing Values

Cases with only one '999' value Cases with multiple '999' values

117	462
150	482
329	552
334	668
448	764
469	1021
532	1159
676	1196
697	1328
700	1437
718	1766
719	1852
771	1862
888	1982
1078	1983
1114	2212
1147	2292
1197	2485
1246	2561
1377	2680
1477	2942
1566	2943
1569	22
1724	
1830	
1922	
2036	
2059	
2193	
2337	
2375	
2426	
2506	
2550	
2586	
2606	
2643	
2766	
2835	
2998	
40	

**62 Total Cases
Eligible for
Listwise Deletion**

Table 30. Demographics of Deleted Cases Due to Missing Values

Case #	Rank	Component	AFSC
117	E-5	Active	2T2
150	O-4	Active	Other
329	O-3E	Active	21R
334	E-4	Reserve	2T2
448	E-4	Active	2T2
462	E-3	Active	2T2
469	E-5	Active	2T2
482	E-7	Guard	2T2
532	E-4	Active	2T2
552	E-5	Active	2T2
668	O-3E	Reserve	21R
676	O-5	Reserve	21R
697	E-5	Reserve	2T2
700	E-5	Reserve	2T2
718	O-1	Guard	21R
719	E-5	Active	2T2
764	E-5	Guard	2T2
771	E-7	Reserve	2T2
888	O-3E	Guard	21R
1021	E-5	Active	2T2
1078	E-6	Active	2T2
1114	E-5	Active	2T2
1147	E-5	Active	2T2
1159	O-5	Active	21R
1196	E-4	Active	2T2
1197	E-7	Reserve	2T2
1246	E-3	Active	2T2
1328	O-4	Active	21R
1377	E-8	Reserve	2T2
1437	E-5	Active	2T2
1477	O-2	Active	21R
1566	E-7	Reserve	2T2
1569	E-3	Active	2T2
1724	E-5	Reserve	2T2
1766	E-6	Reserve	2T2
1830	E-6	Active	2T2
1852	E-3	Active	2T2
1862	E-3	Active	2T2
1922	O-4	Active	21R
1982	E-8	Reserve	2T2
1983	O-2	Active	21R
2036	E-8	Guard	2T2

Table 30. Demographics of Deleted Cases Due to Missing Values (continued)

Case #	Rank	Component	AFSC
2059	E-5	Reserve	2T2
2193	E-6	Active	2T2
2212	E-6	Active	2T2
2292	E-7	Reserve	2T2
2337	E-5	Active	2T2
2375	O-3	Active	21R
2426	O-2	Active	21R
2485	E-6	Guard	2T2
2506	E-4	Active	2T2
2550	E-4	Active	2T2
2561	E-4	Active	2T2
2586	E-6	Reserve	2T2
2606	E-4	Active	2T2
2643	E-5	Reserve	2T2
2680	O-3E	Active	21R
2766	E-6	Active	2T2
2835	E-6	Reserve	2T2
2942	E-8	Reserve	2T2
2943	E-6	Reserve	2T2
2998	E-7	Reserve	2T2

Table 31. Demographics of Deleted Cases Due to AFSC Mis-match

Case #	Rank	Component	AFSC
210	E-5	Active	Other
1589	E-6	Reserve	Unknown
1625	E-6	Reserve	Other
1916	E-7	Reserve	Unknown
2420	E-5	Guard	Other
2700	E-8	Guard	Other
2832	E-6	Guard	Unknown

Appendix G: Principal Components Analysis (PCA) Documentation

Table 32. Items Not Significantly Correlated

Item	Item Correlation	Correlated With Item	Sig. (1-tailed)
1	-0.047	19	0.107
1	-0.046	22	0.111
1	-0.048	35	0.103
2	0.038	5	0.158
2	0.017	17	0.326
2	0.014	18	0.356
2	0.004	32	0.453
3	-0.045	5	0.117
3	0.019	17	0.304
3	-0.006	18	0.436
3	0.035	32	0.177
3	-0.009	39	0.402
4	0.035	19	0.179
4	0.04	22	0.145
4	-0.008	26	0.412
4	0.041	34	0.139
4	0.005	35	0.453
4	0.004	37	0.456
5	0.048	7	0.103
5	-0.041	8	0.141
5	-0.053	11	0.083
5	-0.037	12	0.168
5	0.009	13	0.407
5	-0.034	14	0.182
5	-0.049	16	0.097
5	0.045	20	0.119
5	-0.023	23	0.275
5	-0.022	24	0.28
5	-0.006	25	0.435
5	-0.031	27	0.208
5	-0.026	28	0.25
5	0.032	29	0.202
5	-0.016	30	0.333

Table 32. Items Not Significantly Correlated (Continued)

Item	Item Correlation	Correlated With Item	Sig. (1-tailed)
5	-0.039	31	0.15
5	-0.05	33	0.095
5	0.041	36	0.14
5	0.019	38	0.312
6	0.046	19	0.112
6	-0.008	26	0.417
6	-0.051	32	0.091
6	0.007	34	0.431
6	0.033	35	0.192
6	0.019	37	0.312
6	-0.047	39	0.11
7	0.041	17	0.141
7	-0.011	39	0.388
8	0.004	17	0.456
8	0.024	18	0.265
8	0.034	22	0.183
8	0.004	32	0.454
11	-0.061	19	0.055
11	-0.031	22	0.206
11	-0.027	26	0.241
11	-0.051	32	0.089
11	-0.033	34	0.19
11	0.027	35	0.237
11	-0.028	37	0.232
12	-0.042	18	0.134
12	-0.052	19	0.087
12	-0.056	22	0.071
12	-0.005	26	0.451
12	-0.014	32	0.357
12	-0.025	34	0.256
12	0.04	35	0.143
12	-0.006	37	0.442
13	-0.048	18	0.104
13	-0.024	19	0.26

Table 32. Items Not Significantly Correlated (Continued)

Item	Item Correlation	Correlated With Item	Sig. (1-tailed)
13	-0.057	22	0.066
13	0.005	26	0.447
13	0.004	32	0.458
13	-0.033	34	0.192
13	0.033	35	0.191
13	-0.008	37	0.419
14	-0.051	18	0.09
14	-0.036	19	0.169
14	0.013	26	0.366
14	-0.024	32	0.263
14	-0.045	34	0.116
14	0.005	35	0.449
14	0.017	37	0.33
15	-0.025	19	0.254
15	-0.013	34	0.366
15	-0.012	37	0.373
16	-0.014	19	0.355
16	-0.037	22	0.165
16	-0.047	26	0.108
16	-0.019	35	0.306
16	-0.008	37	0.416
16	-0.042	39	0.135
17	0.039	20	0.154
17	-0.033	24	0.194
17	0.022	25	0.284
17	-0.034	27	0.188
17	0.042	29	0.134
17	-0.014	36	0.359
17	-0.011	38	0.387
18	-0.058	21	0.062
18	-0.017	24	0.327
18	-0.006	25	0.441
18	-0.002	27	0.474
18	0.013	36	0.362

Table 32. Items Not Significantly Correlated (Continued)

Item	Item Correlation	Correlated With Item	Sig. (1-tailed)
18	-0.051	38	0.091
19	-0.009	23	0.407
19	0.047	27	0.109
19	-0.029	31	0.224
20	-0.035	39	0.175
21	0.007	26	0.43
21	-0.001	34	0.487
21	0.028	35	0.23
21	0.058	37	0.063
21	-0.041	39	0.141
22	0.055	24	0.073
22	0.035	25	0.176
22	0.047	27	0.109
22	0.012	38	0.379
23	-0.014	26	0.36
23	-0.061	32	0.055
23	0.023	34	0.272
23	-0.002	35	0.479
23	-0.016	37	0.339
24	-0.018	32	0.313
25	-0.052	32	0.083
25	0.043	34	0.126
26	-0.06	30	0.057
26	-0.032	33	0.197
27	-0.05	32	0.095
27	0.058	34	0.064
28	-0.027	39	0.239
29	-0.039	39	0.15
30	-0.036	37	0.173
31	-0.031	34	0.209
31	-0.05	35	0.096
31	-0.032	37	0.202
32	-0.03	36	0.217
32	-0.047	38	0.106

Table 32. Items Not Significantly Correlated (Continued)

Item	Item Correlation	Correlated With Item	Sig. (1-tailed)
33	-0.04	37	0.145
34	0.015	38	0.349
34	-0.061	40	0.054
37	0.046	38	0.112

Table 33. PCA Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cum %	Total	% of Variance	Cum %
1	10.652	27.312	27.312	10.652	27.312	27.312
2	5.215	13.372	40.683	5.215	13.372	40.683
3	2.239	5.742	46.425	2.239	5.742	46.425
4	1.840	4.718	51.144	1.840	4.718	51.144
5	1.513	3.880	55.024	1.513	3.880	55.024
6	1.246	3.195	58.219	1.246	3.195	58.219
7	1.077	2.762	60.982	1.077	2.762	60.982
8	.959	2.458	63.440			
9	.883	2.264	65.704			
10	.826	2.117	67.822			
11	.824	2.113	69.935			
12	.778	1.994	71.928			
13	.718	1.841	73.769			
14	.663	1.700	75.469			
15	.648	1.661	77.130			
16	.607	1.557	78.688			
17	.592	1.517	80.205			
18	.575	1.474	81.679			
19	.534	1.370	83.048			
20	.507	1.299	84.347			
21	.471	1.208	85.555			
22	.456	1.168	86.723			
23	.436	1.119	87.842			
24	.431	1.104	88.946			
25	.402	1.030	89.976			
26	.389	.997	90.973			
27	.375	.960	91.934			
28	.363	.930	92.864			
29	.341	.874	93.738			
30	.299	.767	94.505			
31	.286	.733	95.238			
32	.282	.722	95.960			
33	.270	.691	96.651			
34	.266	.683	97.334			
35	.246	.632	97.966			
36	.221	.566	98.532			
37	.208	.532	99.064			
38	.196	.503	99.567			
39	.169	.433	100.000			

Extraction Method: Principal Component Analysis.

Table 34. Item Communalities

	Initial	Extraction
Item_1	1.000	.661
Item_2	1.000	.655
Item_3	1.000	.543
Item_4	1.000	.577
Item_5	1.000	.513
Item_6	1.000	.620
Item_7	1.000	.548
Item_8	1.000	.606
Item_11	1.000	.574
Item_12	1.000	.810
Item_13	1.000	.791
Item_14	1.000	.801
Item_15	1.000	.597
Item_16	1.000	.547
Item_17	1.000	.482
Item_18	1.000	.594
Item_19	1.000	.485
Item_20	1.000	.650
Item_21	1.000	.455
Item_22	1.000	.443
Item_23	1.000	.591
Item_24	1.000	.686
Item_25	1.000	.627
Item_26	1.000	.608
Item_27	1.000	.516
Item_28	1.000	.743
Item_29	1.000	.708
Item_30	1.000	.653
Item_31	1.000	.630
Item_32	1.000	.429
Item_33	1.000	.747
Item_34	1.000	.661
Item_35	1.000	.586
Item_36	1.000	.675
Item_37	1.000	.574
Item_38	1.000	.562
Item_39	1.000	.568
Item_40	1.000	.661
Item_41	1.000	.605

Extraction Method: Principal Component Analysis.

Table 35. Unrotated Component Matrix

	Component						
	1	2	3	4	5	6	7
FAM_1	.587						
EFFECT_2	.728						
EFFECT_3	.608						
POS_4	.703						
EFF_5							.432
PM_6	.682						
EFF_7	.595						
PM_8	.711						
OC_11	.475				-.441		
OC_12	.489		.679				
OC_13	.519		.670				
OC_14	.448		.716				
POS_15	.598						
POS_16	.558						
BEN_17		.520					
PM_18		.665					
PM_19		.585					
EFF_20	.623						
EFFECT_21	.484						
BEN_22		.584					
POS_23	.723						
PM_24	.798						
EFFECT_25	.741						
EFF_26		.692					
EFFECT_27	.600						
BEN_28	.475	.425		-.430			
BEN_29	.650						
POS_30	.435				.436		
FAM_31	.586						
PM_32		.541					
POS_33	.561						
BEN_34		.605					
BEN_35		.684					
EFFECT_36	.723						
EFF_37		.675					
EFFECT_38	.698						
EFFECT_39						.604	
FAM_40	.603						
EFFECT_41	.535						

Extraction Method: Principal Component Analysis.

a 7 components extracted.

Table 36. Varimax Rotated (Orthogonal) Component Matrix

	Component						
	1	2	3	4	5	6	7
FAM_1	.683						
EFFECT_2	.734						
EFFECT_3	.585						
POS_4	.648						
EFF_5						.696	
PM_6	.672						
EFF_7	.494	.496					
PM_8	.704						
OC_11					.609		
OC_12					.864		
OC_13					.832		
OC_14					.840		
POS_15			.530				
POS_16	.435						
BEN_17				.621			
PM_18						.641	
PM_19						.521	
EFF_20		.676					
EFFECT_21		.549					
BEN_22				.597			
POS_23	.569		.435				
PM_24	.685						
EFFECT_25	.679						
EFF_26				.427		.631	
EFFECT_27	.476	.454					
BEN_28		.796					
BEN_29		.714					
POS_30			.732				
FAM_31			.674				
PM_32						.509	
POS_33			.798				
BEN_34				.799			
BEN_35				.610			
EFFECT_36	.708						
EFF_37				.658			
EFFECT_38	.641						
EFFECT_39							.693
FAM_40	.584						
EFFECT_41	.505			.439			

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 11 iterations.

Table 37. Direct Oblimin (Oblique) Rotated Component Matrix

	Component						
	1	2	3	4	5	6	7
FAM_1	.689						
EFFECT_2	.773			-.433			
EFFECT_3	.624			-.499			
POS_4	.679		.439		.436		
EFF_5							.685
PM_6	.686				.431		
EFF_7	.549			-.605			
PM_8	.736			-.437			
OC_11	.441		.673				
OC_12			.896				
OC_13			.879				
OC_14			.863				
POS_15	.449		.441		.636		
POS_16	.460				.498		
BEN_17		.627					
PM_18		.436					.728
PM_19		.469					.587
EFF_20				-.750			
EFFECT_21				-.578			
BEN_22		.627					
POS_23	.620		.447		.585		
PM_24	.739			-.501	.426		
EFFECT_25	.723			-.440	.436		
EFF_26		.526					.716
EFFECT_27	.548			-.542			
BEN_28				-.832			
BEN_29	.442			-.795			
POS_30					.758		
FAM_31	.450				.758		
PM_32							.574
POS_33					.853		
BEN_34		.805					
BEN_35		.656		-.424			
EFFECT_36	.756			-.438			
EFF_37		.699					.429
EFFECT_38	.683				.456		
EFFECT_39						.696	
FAM_40	.611				.567		
EFFECT_41	.552	.507					

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Bibliography

- Albrecht, Karl and Ron Zemke. *Service America! Doing Business in the New Economy*. Homewood, IL: Dow Jones-Irwin, 1985.
- Albrecht, Karl. *At America's Service: How Corporations Can Revolutionize the Way They Treat Their Customers*. Homewood, IL: Dow Jones-Irwin, 1988.
- Alreck, Pamela L. and Robert B. Settle. *The Survey Research Handbook* (3rd Edition). Boston: McGraw-Hill Irwin, 2004.
- Armstrong, J. Scott and Terry S. Overton. Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, 14, 396-402, 1977.
- Bowersox, Donald J., David J. Closs, and Omar K. Helferich. *Logistical Management: A Systems Integration of Physical Distribution, Manufacturing Support, and Materials Procurement* (3rd Edition). New York: Macmillan Publishing Company, 1986.
- Cook, Thomas D. and Donald T. Campbell. *Quasi-Experimentation: Design & Analysis Issues for Field Settings*. Boston: Houghton Mifflin, 1979.
- Denton, D. Keith. *Quality Service: How America's Top Companies Are Competing in the Customer-Service Revolution...and How You Can Too*. Houston: Gulf Publishing Company, 1989.
- Dillman, Don A. *Mail and Internet Surveys: The Tailored Design Method*. New York: John Wiley & Sons, Inc., 2000.
- Facteau, Jeffrey D., Gregory H. Dobbins, Joyce E. A. Russell, Robert T. Ladd, and Jeffrey D. Kudisch. "The Influence of General Perceptions of the Training Environment on Pretraining Motivation and Perceived Training Transfer." *Journal of Management*, 21(1), 1. (1995).
- Flores, *Customer Service Analysis of Tactical Air Command Base Level Supply Support*. MS Thesis, AFIT/GLM/LSM/90S-17. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1990. (ADA229253).
- Gamino, John M. *The Unified Logistics Command Concept: A Critical Analysis*. MS Thesis. U.S. Army Command and General Staff College, Fort Leavenworth KS, June 1971. (AD733383).

- Groover, Charles M. *Customer Satisfaction with Air Force Civil Engineering Support*. MS Thesis, AFIT/GEM/LSM/88S-8. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1988. (ADA201582).
- Hinton, Thomas D. *The Spirit of Service: How to Create a Customer-Focused Service Culture*. Dubuque, IA: Kendall/Hunt Publishing Company, 1991.
- HQ AMC/A43. "Pure Pallet Cargo for the CENTCOM Area of Operations." Electronic Message. 071900Z, Jan 05.
- Isaac, S. and W. B. Michael. *Handbook in Research and Evaluation*. San Diego: EdITS, 1971.
- Kerlinger, Fred N. *Foundations of Behavioral Research*. New York: Holt, Rinehart, & Winston, 1973.
- Jones, David W. *A Study of the Air Force's Exception Management Process: Its Effect on Customer Service and Order Processing*. MS Thesis, AFIT/GLM/LSM/91S-34. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1991. (ADA246627).
- Kim, Jae-On and Charles W. Mueller. *Introduction to Factor Analysis: What It Is and How to Do It*. Thousand Oaks, CA: Sage Publications, Quantitative Applications in the Social Sciences Series, No. 13, 1978.
- Kirschbaum, Max E. *A Measurement of Civil Engineering Customer Satisfaction*. MS Thesis, AFIT/GEM/DEM/87S-13. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1987. (ADA186963).
- La Londe, Bernard J., Martha C. Cooper, and Thomas G. Noordewier. *Customer Service: A Management Perspective*. Oak Brook, IL: Council of Logistics Management, 1988.
- La Londe, Bernard J. and Martha C. Cooper. *Partnerships in Providing Customer Service: Third Party Perspective*. Oak Brook, IL: Council of Logistics Management, 1989.
- Lash, Linda M. *The Complete Guide to Customer Service*. New York: John Wiley & Sons, Inc., 1989.
- Layer, Brian R. *Contingency Operation Logistics: USTRANSCOM's Role When Less Must Be More*. Monograph, USACGSC/SAMS. School of Advanced Military

- Studies, Army Command and General Staff College Management, Fort Leavenworth KS, 6 May 1994. (ADA284067).
- Lindner, James R., Tim H. Murphy, and Gary E. Briers. Handling Nonresponse in Social Science Research, *Journal of Agricultural Education*, 42(4), 43-53, 2001.
- Long, Danny S. *Customer Management Skills for Effective Air Force Civil Engineering Customer Service*. MS Thesis, AFIT/GEM/DEM/86S-17. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson AFB OH, September, 1986. (ADA174114).
- McIntyre, Kendall K. *Logistical Field Support of Army Major Weapons Systems*. Study Project Report, PMC 77-1. Defense Systems Management College, Fort Belvoir VA, May 1977. (ADA043202).
- Mongold, Michael B. *Impact of the Pure Pallets on the Effectiveness and Efficiency of the Defense Transportation System*. Graduate Research Project, AFIT/ENS/GMO/05E-09. Graduate School of Engineering and Management, Air Force Institute of Technology (AU), Wright Patterson Air Force Base OH, May 2005
- Newman, Thomas J. *Combat Service Support at Echelons Above Corps: The Doctrinal Challenge*. Monograph, USACGSC/SAMS. School of Advanced Military Studies, Army Command and General Staff College Management, Fort Leavenworth KS, 10 May 1993. (ADA274543).
- Norušis, Marija J. *SPSS 13.0 Guide to Data Analysis*. Upper Saddle River, NJ: Prentice Hall, 2005a.
- Norušis, Marija J. *SPSS 13.0 Statistical Procedures Companion*. Upper Saddle River, NJ: Prentice Hall, 2005b.
- Nunnally, Jum C. and Ira H. Bernstein. *Psychometric Theory* (3rd Edition). New York: McGraw-Hill, 1994.
- Peters, Thomas J. and Robert H. Waterman, Jr. *In Search of Excellence: Lessons from America's Best Run Companies*. New York: Harper and Row, 1982.
- Peters, Thomas J. and Nancy Austin. *A Passion for Excellence: The Leadership Difference*. New York: Random House, 1985.
- Podsakoff, Philip M. and Dennis W. Organ. Self-Reports in Organizational Research: Problems and Prospects, *Journal of Management*, 12(4), 531-544, 1986.

- Redlich, Douglas C. *The Joint Logistics Operational Level of War and the Unified Command J4*. Research Paper, Naval War College, Newport RI, 19 June 1992. (ADA253153).
- Robbins, Marc L., Patricia M. Boren, and Kristin Lueschner. *The Strategic Distribution System in Support of Operation Enduring Freedom*. Documented Briefing, DB-428-USTC/DLA, RAND National Defense Research Institute and Arroyo Center. RAND Corporation: March 2004.
- Robbins, Marc L. Slide presentation. "Pure Pack Policy Charts." Received via email 1443hrs, 9 February 2006.
- Robbins, Marc L. Unpublished Report. "The analyses documented in this report were conducted as part of two RAND Arroyo projects: 'Army Logistics in OIF: Key Issues for the Army' and 'Distribution in OIF.'" RAND Arroyo Center's Military Logistics Program. RAND Corporation: Unpublished.
- Robinson, Nathaniel. *The Defense Logistics Agency: Providing Logistics Support Throughout the Department of Defense*. ARI Command-Sponsored Research Fellow, Research Report No. AU-ARI-92-4. Maxwell AFB AL: Air University Press, October 1993. (ADA273791).
- Singel, Kenneth R. *Measurement of Civil Engineering Customer Satisfaction in Tactical Air Command: A Prototype Evaluation Program*. MS Thesis, AFIT/GEM/DEM/86S-23. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1986. (ADA174116).
- Spicer, John. *Making Sense of Multivariate Data Analysis*. Thousand Oaks, CA: Sage Publications, 2005.
- Spies, Jill R. *Improving Internal Customer Service*. MS Thesis, AFIT/GLM/LSR/90S-55. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1990. (ADA229580).
- Taylor, Ronald D. *Implementation of Organizational Change in the Air Force: A Case Study*. MS Thesis, AFIT/GLM/LSR/89S-66. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1989. (ADA215363).
- Thalheim, Thomas C. *Desert Express: An Analysis on Improved Customer Service*. MS Thesis, AFIT/GLM/LSM/91S-64. School of Systems and Logistics, Air Force Institute of Technology (AU), Wright-Patterson Air Force Base OH, September 1991. (ADA246747).

USTCJ5-SM. Slide presentation. "Database Information Brief: Building / Populating Strategic Distribution Database, dated 9 September 2005." Received via email 1338hrs, 20 December 2005.

USTCNS. "U.S. Transportation Command Appointed As Defense Distribution Process Owner," *USTRANSCOM News Service*, Release Number 030925-1, 9 September 2003. 7 March 2006
<http://www.transcom.mil/pa/body.cfm?relnumber=030925-1>.

----. "Transforming the Deployment and Distribution Seams Between Strategic and Operational Logistics", *USTRANSCOM News Service*, Release Number 040210-1, 10 February 2004. 7 March 2006
<http://www.transcom.mil/pa/body.cfm?relnumber=040210-1>.

----. "Schwartz Nominated to Command USTRANSCOM", *USTRANSCOM News Service*, Release Number 050614-1, 14 June 2005a. 7 March 2006
<http://www.transcom.mil/pa/body.cfm?relnumber=050614-1>.

----. "Schwartz Assumes Command of U.S. Transportation Command", *USTRANSCOM News Service*, Release Number 050907-1, 7 September 2005b. 7 March 2006
<http://www.transcom.mil/pa/body.cfm?relnumber=050907-1>.

----. "USTRANSCOM Commander Discusses Separation of Commands", *USTRANSCOM News Service*, Release Number 051102-1, 14 June 2005c. 7 March 2006 <http://www.transcom.mil/pa/body.cfm?relnumber=051102-1>.

Walden, Joseph L. *Velocity Management in Logistics and Distribution: Lessons from the Military to Secure the Speed of Business*. Boca Raton FL: Taylor & Francis Group, 2006a.

Walden, Joseph L. Retired U.S. Army Colonel involved in establishing the Theater Distribution Center (TDC) in Kuwait in 2003, three weeks before the start of the ground war. Personal Email Correspondence. 26 January 2006b.

Zeithaml, Valarie A., A. Parasuraman, and Leonard L. Berry. *Delivering Quality Service: Balancing Customer Perceptions and Expectations*. New York: The Free Press, 1990.

Vita

Captain Michael T. Dye graduated from W.C. Hinkley High School in Aurora, Colorado in June 1994 and began his undergraduate education at The Citadel in August 1994. He graduated with a Bachelor of Science degree in Business Administration and was commissioned in May 1998. He completed the first ever Air and Space Basic Course in August 1998 while enroute to his first duty station, Davis-Monthan AFB, Arizona, where he served as OIC, Contingency Operations. In June 2000, he was assigned to Randolph AFB, Texas, where he served as Installation Deployment Officer and Chief of Logistics Plans. In July 2002, he was assigned to Dover AFB, Delaware, as Chief of Logistics Plans. Shortly after his arrival he deployed to Karshi-Khanabad Airfield, Uzbekistan where he activated the 416th Air Expeditionary Group's Expeditionary Logistics Readiness Flight, which was later awarded the Air Force Outstanding Unit Award with Valor (V-Device). Upon his return, he served as the Readiness Flight Commander in the 436th Logistics Readiness Squadron. Completing Squadron Officer School in-residence in October 2003, he returned to Dover to serve as the Air Freight Flight Commander in the 436th Aerial Port Squadron, and led the initial implementation of the pure pallet program there. His flight was later recognized as Air Mobility Command's 2004 "Best Air Freight Flight" In August 2004 he entered the Graduate School of Engineering and Management, Air Force Institute of Technology. Upon graduation, he will be assigned to Headquarters Air Mobility Command, Scott AFB, Illinois.

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